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SMITHSONIAN INSTITUTION

Fiscal Year 1984

Justification of Estimates of Appropriations
To the Office of Management and Budget



ADMINISTRATIVELY CONFIDENTIAL

(Information not to be released until after the President's
Budget is submitted to the Congress in January 1983.)

September 1982



8/31/82

Honorable David L. Stockman
Director, Office of Management
and Budget
Washington, D.C. 20503

Dear Mr. Stockman,

With this letter, we are transmitting the Smithsonian Institution's FY 1984 budget request to the Office of Management and Budget. Our request for the Salaries and Expenses, Restoration and Renovation of Buildings and Zoo Construction Appropriation Accounts totals \$169.4 million. We also are seeking a sum of \$9 million equivalent in excess foreign currencies for the Special Foreign Currency Appropriation. Our submission is fully supportive of the President's policy objectives and OMB's guidelines.

Resources sought in our FY 1984 budget would permit the continuation of vital programs of original research in a variety of scientific, historical and artistic disciplines and of exciting and enriching exhibitions and educational programs that reach over 30 million people annually in Washington, D.C. and throughout the Nation. They also would support essential maintenance, repair, and security of Smithsonian buildings and grounds.

Additional resources that we are requesting for FY 1984 would meet higher budget year costs of current programs and improve the efficiency and effectiveness of existing programs through a modest investment in automation and the provision of a more adequate level of research support. Resources are included also to improve the Institution's capabilities to care for and protect the over 72 million art, technological and cultural history objects and natural history specimens that comprise the National Collections as well as Smithsonian buildings and facilities. A small proposed increase would further extend the opportunity of viewing Smithsonian exhibitions to people in all 50 states, through the Smithsonian Traveling Exhibition Service and through extended loans to institutions. An increment toward the further development of the National Zoological Park's Conservation and Research Center in Front Royal, Virginia, with the construction of a veterinary hospital and another small structure is included also.

JVellin/gt/8-30-82

cc: Messrs. Risley, Hughes, Goudon, Robbins, Jameson, Taylor,
Hohenlohe, Mitter, Powers, Chailior, Euell, Perrot, Symington
Payton, Fiske, Ms. Vird, OPB Subject, OPB Chron, Secretary's Files

Taking into account the President's objective of holding down the size of the Federal government, we have limited our request for new staff to two essential categories--security and the operational support of the Museum Support Center. It is absolutely critical that the Institution be permitted to continue its phased program of bringing the guard force to an adequate level. The Institution currently has a shortage of 109 guards; an additional 48 are sought as a very high priority in FY 1984.

The new Museum Support Center located in Suitland, Maryland, is nearing completion. It will contain 146,000 square feet of fully acclimatized storage space that is greatly increased by vertical storage up to a ceiling height of 25 feet in addition to contiguous conservation, research and office space. An additional 102 workyears are essential for the protection and maintenance of the building and the support of the conservation and other programs of the Center.

We would further note that the Institution's management has taken several steps to promote efficient and effective use of available resources. Notable among these is the execution of a program that will give the Institution inventory control over the National Collections. The initial stage of this comprehensive effort will be completed by June, 1983. Additionally, energy conservation measures have permitted us to hold the line on utilities costs and special actions have been initiated to control increasing postage and telecommunications expenses. Prompted by the need to conserve workyears, cost effective use of contractual services has been extended to cover elevator operation, checkroom attendance and custodial care at the Institution's Service Center on North Capitol Street. Moreover, our budget and accounting systems have been automated and strict financial controls have been implemented which permit close monitoring of appropriations and careful attention to utilization of funds. Outside financial audits of the Institution which examine Trust fund usage have been extended to cover Federal appropriations to assure that the most efficient financial practices are being followed in accordance with established regulations. Toward effective planning, the Institution prepares annually a five-year prospectus with an additional look beyond the fifth year for longer-range developments and an Office of Information Resource Management has been established to identify Institution-wide information needs and to provide solutions to requirements in integrated and cost effective ways.

As an enclosure to this letter, we address the specific implications of a reduction to our base. Because the Smithsonian is a salary intensive organization whose limited support funds have been reduced significantly by the Congressional four percent across-the-board cut to our FY 1982 appropriation, any cutback to our base resources would produce grave consequences to our research, collections management, exhibitions, education and outreach programs. Moreover, our ability to protect, maintain adequately and repair our buildings and physical plant would be crippled.

We are very grateful to the Office of Management and Budget for its understanding of our programs. The Institution's objectives as expressed in our FY 1984 request, in our view, warrant OMB's continued support.

Sincerely,

/s/

Phillip S. Hughes
Acting Secretary

Enclosure

EFFECTS OF BASE REDUCTION

The specific effects of a five to ten percent base reduction by appropriation accounts are described in the following sections. The examples presented represent the actions that most likely would be taken if a reduction were required at this time. We would expect that these or similar actions would be implemented, if necessary, fourteen months in the future at the start of FY 1984.

1. Salaries and Expenses Appropriation.

The Institution's FY 1983 request for this appropriation totals \$144.1 million, approximately 65 percent of which is required for salaries and benefits. With a further amount of \$15.9 million assigned to utilities, communications (including postage) and space rental charges which are largely uncontrollable, only \$34.0 million remains, or 24 percent for all other objects of "discretionary" expense. It is worth noting that other objects support available to the Institution has been stretched to the limit as a result of the four percent across-the-board percentage cut imposed by the Congress to the Smithsonian's FY 1982 appropriations.

A required reduction of five to ten percent would result in elimination and curtailment of programs and programmatic support in all functional categories, including research, collections management, exhibitions and performances, education and public orientation, administration and buildings and facilities management.

Research

Research in history, the arts and sciences is the foundation of all Smithsonian programs. A curtailed research program would erode the Institution's ability to meet its obligation to the general public and to the specialized audiences who depend on the data produced by our scholarly staff. The Smithsonian is a special national resource in that it performs continuous long-term research, such as studies on the collections to show environmental change, that cannot be done by universities or federal agencies. The Institution's influence in a number of fields of basic science is profound and its scholars are looked to by the scientific community to provide data that will fill existing gaps of knowledge and to pioneer new areas of scientific examination essential for advancement in applied areas of science. The scientific and industrial enterprises of this country rely heavily upon major technological breakthroughs based on the fundamental knowledge gathered by organizations like the Smithsonian. Moreover, the results of Smithsonian research are used as the basis for the development of public exhibitions which bring to life themes in history, the arts and sciences as well as the preparation of public educational material and presentations. Specific examples of cuts to research programs at the reduced levels are:

Research

- Closing of the Atlantic coast Galeta Marine Laboratory at the Smithsonian Tropical Research Institute, seriously reducing the quality and quantity of marine research, particularly that involving two-ocean comparisons. There also would be a reduction in the output and immediacy of scientific publications due to a cutback in publications support staff.

- Elimination of the Oceanographic Sorting Center of the National Museum of Natural History/Museum of Man. This elimination would cause severe disruption to the United States oceanographic community which depends on the Sorting Center for processing specimens collected on all major international and national expeditions with United States participation. Additionally, the remaining 16 volumes of the 20 volume Handbook of North American Indians, an ongoing research project of the National Museum of Natural History/Museum of Man would not be completed.
- Elimination/curtailment of two projects of the International Environmental Science Program. Efforts to develop a reintroduction program of the highly endangered Golden-Lion Tamarin would be halted and the continuation of a long-term monitoring program to assess the llanos region of Venezuela would be curtailed or eliminated.
- Deferral of two major research programs at the National Air and Space Museum as a result of the elimination of three research curator positions -- the long-planned definitive History of Aviation and the History of the Space Telescope. Terrestrial remote sensing research conducted by the Museum's Center for Earth and Planetary Studies also would be eliminated.
- Elimination of the Radiation Biology Laboratory's ability to purchase state-of-the-art equipment, thus diminishing the output and precision of data crucial to virtually all of the Laboratory's monitoring programs.
- Deferral of planned data processing enhancement at the Chesapeake Bay Center for Environmental Studies, resulting in substantial delays in the publication of scientific papers and disruption to the Center's entire system of data acquisition and storage. The Center's estuarine research program also would be severely reduced.
- Curtailment of programs in at least three major areas of astronomy at the Smithsonian Astrophysical Observatory, experimental and laboratory astrophysics, high energy astrophysics and experimental and extra-terrestrial materials research - at a time when the national space science program requires fundamental data for its space shuttle and other high priority satellite programs. All research in the history of astronomy, which has gained international visibility, would be phased-out.
- Suspension of research on the collections in the National Museum of American History and cancellation of the resulting publications including catalogues and scholarly works which are designed to interpret the collections for scholars, students and the general public using the Museum's resources.
- Reduction annually, by one-fourth, of the research program which provides the basis for one major exhibition and a related publication at the Hirshhorn Museum and Sculpture Garden. The latter would also be cancelled, diminishing the Museum's opportunities to impart to the visitors an understanding and appreciation of contemporary art.

- Suspension of the use of outside scholar/historians for research on special exhibitions at the National Portrait Gallery which would result in fewer exhibitions and reduced stimulation and new perspectives for the Gallery's historians.
- Elimination of four research-related positions--part-time bibliographer, full-time library technician, full-time historian and a part-time historian--at the National Portrait Gallery, greatly impairing the Gallery's ability to perform the basic work necessary to produce its programs.
- Reduction-in-force of a part-time museum specialist at the Freer Gallery of Art affecting research on the collections and authentication services for the public.
- Elimination of the Research Curator position at the National Museum of African Art thus deferring the necessary research to produce a comprehensive catalogue of the collections and impeding the Museum's capability to develop public exhibitions.
- Reduction of the editorial and operational capacity of the Joseph Henry Papers Projects, seriously affecting the quality of future volumes and setting back by eight to ten years the project completion date. This project involves the gathering of information and the preparation for publication of the manuscripts of Joseph Henry (1797 - 1878), the pioneer American physicist and the first Secretary of the Smithsonian.
- Severe curtailment of services offered by the Smithsonian Institution Libraries, including the elimination of on-line searches available to curators and administrators, thus making it necessary for researchers to conduct manual searches for materials and significant cutbacks to the book and journal budget.

Collections Management

In the collections management function, perhaps the most significant result would be the need to extend the planned period of purchase of the collections storage equipment at the Museum Support Center. The purchase of the storage system has been scheduled to coincide with the movement of the collections from Mall museums to the Center. Delays would subject these collections to further deterioration resulting from the inadequate storage conditions that gave rise to the need for the construction of the Museum Support Center, would not allow the most efficient use of the building, and would be more costly in the long run. Other deleterious effects of reductions to the collections management function would be:

- Cutbacks to the animal keeper staff and to the medical internship program at the National Zoological Park thus forcing a reduction in the size of the animal collection in order to ensure proper health care and maintenance of the animals.

- Halting of the National Air and Space Museum's project to place its photograph collection on video disc. The Museum's documentary air and space collection, one of the best in the world, would be consigned to dead storage instead of being made accessible to researchers. There also would be a curtailment of the program to inspect and preserve those items in the collection not scheduled for restoration in the immediate future, due to elimination of three positions in the restoration and preservation staff.
- Elimination of regional microfilming programs of the Archives of American Art and reduction of microfilming services in the main processing center, thus delaying access to the collection by scholars and students. Closing of one regional center and reducing the size of another would be necessary, thus significantly restricting access to archival materials.
- Deferral of subsequent stages of the inventory program at the National Museum of American History and of purchases of collection storage equipment.
- Reduction of conservation capability at the Freer Gallery of Art by one-third, thus subjecting works of art to further deterioration.
- Elimination of subsequent stages of the inventory program of the Cooper-Hewitt Museum, thus prolonging the important effort to gain full control over these collections for the first time since they came into the Smithsonian. There also would be a diminished ability to purchase supplies, materials and equipment used to continue the Museum's long-term efforts to improve collection storage and conservation.
- Deferral by the Conservation Analytical Laboratory of its training program at the Museum Support Center. This program, which has been encouraged by the Congress, would serve a national need. Conservation work throughout the Institution also would be affected due to staff cut-backs and the need to reduce purchases of conservation supplies.

Exhibitions and Performances

Most evident to the millions of visitors to Smithsonian Museums would be a reduced exhibitions and performances program at most museums. Notable examples of the effects of the reductions would be:

- Deferral of the important and comprehensive program of upgrading and updating the approximately 300,000 square feet of exhibits space at the National Museum of American History. In addition, the popular musical performances of the Smithsonian Institution Chamber Players would be cut in half and smaller exhibitions at the Museum would be eliminated.
- Reduction of the major exhibition schedule by one-half at the National Portrait Gallery including the likely cancellation of an important exhibition, "The Treaty of Paris," a celebration of the first American peace treaty, and the bicentennial of the Revolution's successful end. Additionally, refurbishment of permanent exhibition galleries would be suspended.

- Elimination of one-third or more of the exhibition schedule of the National Museum of African Art, including accompanying printed materials and public programs.
- Reduction in the number of performances and exhibits presented at the popular Folklife Festival.
- Major curtailment of the National Museum of American Art's exhibition sharing program which enables exhibitions organized by the National Museum of American Art to be shown in smaller museums across the country at affordable costs.
- Delay in the opening of the recently constructed nocturnal exhibit located on the lower level of the Reptile House at the National Zoological Park.
- Cancellation of planned upgradings of the Sea-Air Operations gallery and the World War II gallery at the National Air and Space Museum and elimination of the Juan Trippe exhibition.

Education and Public Orientation

The effects of the reductions would also be felt by the public as a result of diminished education and public orientation efforts. In this functional category, there would be:

- Elimination of building brochures and printed gallery guides at the Hirshhorn Museum and Sculpture Garden. These brochures serve as the general introduction to the Museum and introduce major exhibitions to visitors. Public film programs also would be cancelled.
- Elimination of the publication of a major exhibition catalogue, free introductory brochures and free exhibition leaflets by the Freer Gallery of Art.
- Elimination of materials published for school children by the National Museum of American History.
- Elimination of the National Museum of American Art's Discover Graphics Workshop, which reaches 400 high school students from 30 high schools annually, its outreach workshop programs which reach 8,000 high school students in the Washington, D.C. area, and its summer graphics workshop programs for high school teachers.
- Sharp curtailment of the hours for public use of the popular Zoolab, Birdlab and Herplab at the National Zoological Park and curtailment of 200 public education and information activities available to visitors and school groups.
- Suspension of the Discovery Room, the Naturalist Center and all other educational programs of the National Museum of Natural History/Museum of Man.

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- Reduction in the number of issues of two publications produced by the Office of Elementary and Secondary Education - Art to Zoo, a classroom newspaper distributed to over 15,000 schools and 60,000 teachers throughout the United States and Lat's Co, a monthly newspaper used to inform teachers about the variety of Smithsonian services and to suggest ways of using museums as educational resources. The Office also would sharply curtail programs designed to assist disabled visitors, such as sign language classes and the provision of sign language interpreters.
 - Elimination of grants made under the National Museum Act, a technical assistance program under which grants are made to enhance the quality of museum operations by supporting training in museum work, encouraging research and special studies for improvement of museum methods and practices and assisting in the dissemination of technical information to the museum profession.

Collections Acquisition programs of the History and Art museums would be cut back. Acquisitions are essential to the task of maintaining for the public a first rate collection of historic and artistic treasures worthy of the national museums of the United States. Any diminution of projected FY 1983 base acquisition funds totalling \$845 thousand would deal a severe blow to the collections and result in a loss to the public of art treasures that may never again be available.

A base reduction in the Administrative function would curtail severely the capability of approximately 20 organization units to provide a wide range of services and to oversee and monitor the activities of the Institution for internal control and public accountability. These units are engaged in financial, personnel, procurement, legal counsel, management analysis, computer, public information, photographic and travel services, and internal audit work. By its nature, this work is labor intensive. Relatively few funds exist to absorb cuts. Consequently, a base reduction of 5-10 percent would result in a reduction in force of as many as 15 persons in offices already understaffed as a result of workyear limitations. Reductions in services and control would result.

Cuts in other object class funding also would reduce staff capability by denying resources necessary for acceptable performance. A number of examples can be cited. Travel to field activities for programming planning, oversight and problem solving would be reduced. Efforts to examine and bring together related applications for data and word processing would be slowed by inability to acquire approved equipment that would help the Institution manage resources more effectively. The Institution's progress to date in copying on safety film some 200,000 historically important but hazardous nitrate negatives would be slowed. Supplies, materials and equipment required to produce inventory, research and exhibit photographs would be limited. Training of managers and supervisors in personnel skills would have to be reduced. Cuts would be made in the number of cooperative education students who could be assigned to the Institution, thus reducing the pool of minority and women applicants for future positions. Supplies of paper stock centrally procured would fall below necessary inventory levels. Labor saving equipment for procurement and warehouse operations would not be bought. Supplies of museum guide leaflets published in English and in various foreign languages would not be available in adequate numbers for American and foreign visitors.

Buildings and Facilities Management and Protection also would suffer under a base reduction. At the level of a 5-10 percent cut, summer hours in all museums would be eliminated and a further reduction of as many as 100 permanent staff would be necessary at the higher level. Such reductions would curtail building maintenance, force closings in public exhibit galleries for security and conservation reasons, delay vehicle safety maintenance, reduce K-9 corps patrols outside of buildings, and delay the implementation of the proprietary alarm system. Funds now available to contract for construction design and management services to augment our limited in-house staff would be cut. This would result in delays in repairs and renovations to the physical plant.

2. Construction: Restoration and Renovation of Buildings

The Institution's FY 1983 request for this account totals \$2.45 million. The Restoration and Renovation of Buildings (RRB) request consists of repairs to facades, roofs and terraces of various historic and monumental buildings; the upgrading, including planning and installation, of fire detection and suppression systems; the provision of improved access for the disabled, and the correction of conditions that could be hazardous to the safety and security of the visiting public, staff and collections; repairs and improvements (many of an energy conservation nature) to utilities systems, including heating, ventilating and air conditioning systems and plumbing and electrical systems; improvements in support of programmatic objectives, mainly at the Smithsonian's outlying facilities; and general repairs and improvements that are required for a variety of purposes. The Five-Year Prospectus for FY 1984-1988 identifies 369 projects estimated to cost approximately \$69.3 million. The Institution is committed to the accomplishment of this work which will require an average annual funding level of \$13.9 million.

Projects funded of the RRB account are basic to the proper care of the Institution's facilities. Such projects consist of preventive maintenance and essential repair and renovation of the Institution's physical plant. A five to ten percent reduction would damage our ability to sustain an adequate renovation and repair effort. Higher long-term costs would result, not only due to inflation but because minor problems would not be averted through preventive maintenance or corrected before they become major. Moreover, the structural integrity of several Smithsonian buildings would be threatened, and the collections would be endangered as a result of inadequate environmental control, fire protection and security systems.

Under a reduction, allocations would be limited to selected phased projects already in progress or in design. These would include the Arts and Industries roof and exterior renovation, the Renwick facade restoration, the American History roof replacement, fire protection projects at the American History and Natural History Buildings, heating, ventilating and air conditioning renovation at the American Art/Portrait Gallery Building, American History's cooling tower replacement and the exhibits laboratory addition for the Anacostia Neighborhood Museum.

Other work planned in the FY 1984 request covering 19 projects in various categories would be curtailed or deferred. These projects include such work as general repairs for the off-Mall facilities; fire protection projects at the Freer Gallery, Smithsonian Institution Building, Smithsonian Tropical Research Institute and the Whipple Observatory in Arizona; safety and security projects

at the Air and Space Building; and plumbing and electrical, heating, ventilating and air conditioning projects at the Chesapeake Bay Center, Freer Gallery, Hirshhorn Museum and Sculpture Garden and the Whipple Observatory. Also deferred would be progress on installing the Smithsonian's proprietary security system and on eliminating asbestos hazards in various buildings. Finally, renovation work in direct support of exhibitions, research and collections management programs would not be undertaken at the Smithsonian Institution Libraries in the Natural History Building.

3. Construction: National Zoological Park The Zoo's FY 1983 construction request of \$3.5 million includes an amount of \$1.4 million for restoration and renovation work at the Rock Creek Zoo and the Front Royal Conservation and Research Center (CRC) and \$2.1 million for further development of the CRC.

A reduction to the request would most severely hurt the CRC program. The success of the Front Royal breeding and research programs since FY 1975 (when the 3,150 acre property was transferred from the Department of Agriculture where it had served as a beef cattle experiment station) has resulted in a rare and endangered animal population of over 340 mammals and 370 birds comprising some 46 species. For FY 1984, the Institution is seeking monies for a veterinary hospital facility and for the final construction phase of the Small Animal Facility. Delay in hospital construction would pose a serious health problem for the animals. Without the hospital, the Zoo could not provide adequate treatment for the existing animal population or for their progeny, nor could it carry out an appropriate preventive medical program. Inability to build the final phase of the Small Animal Facility would jeopardize research and breeding programs of various small animals, including marsupials, tree kangaroos and small birds, which would be housed there.

SMITHSONIAN INSTITUTION
Fiscal Year 1984 Appropriations Request

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SMITHSONIAN INSTITUTION
SUMMARY AND HIGHLIGHTS OF THE FY 1984 BUDGET

The accompanying materials that detail the Smithsonian Institution's proposed FY 1984 budget include requests in the format of decision packages for the Salaries and Expenses, Construction (National Zoological Park and Restoration and Renovation of Buildings), and the Special Foreign Currency Program appropriation accounts. A ranking sheet that represents the Institution's priorities and an explanation of the ranking are provided also. The Special Foreign Currency Program, whose resource request is expressed in excess foreign currency equivalents, is not competitively ranked against other accounts. Accompanying information is presented on the Institution's nonappropriated Trust fund accounts.

Budget Formulation Process

The Smithsonian's FY 1984 budget submission was developed from the lowest practicable organizational level upward with the active participation of all managers. The nonappropriated Trust fund budget was developed simultaneously and in coordination with the Federal budget. (The Institution's FY 1982 and FY 1983 nonappropriated Trust fund budgets and projections for FY 1984 through FY 1988 accompany this document.) Following guidance from the Secretary that outlined his views on the Institution's budget priorities and starting with program areas of emphasis and financial projections for FY 1984 as they appear in the Five-Year Prospectus FY 1983 - FY 1987, each organization prepared its own Salaries and Expenses budget. There are approximately 60 organizational entities (museums, bureaus, or offices) that receive an annual allocation of funds on the basis of which managers must make significant decisions about the scope and the distribution of work to be performed.

The next step involved the preparation of consolidated Salaries and Expenses decision packages by each Assistant Secretary (Science, History and Art, Public Service, Museum Programs, and Administration). The consolidated decision packages reflect critical review and analysis and express the most important areas of emphasis at this management level.

The development of the Restoration and Renovation (R&R) account proceeded simultaneously with the Salaries and Expenses review process. The Five-Year Prospectus FY 1983 - FY 1987, also provided the starting point for formulating the FY 1984 R&R budget request. The Office of Facilities Services distributed to the bureaus a listing and description of all R&R needs that had been identified and scheduled for their facilities for the next five or more years. The Office of Facilities Services and appropriate staff members then met individually with each bureau to review all identified projects, to add newly identified needs and to establish tentative priorities for FY 1984. Subsequently, each Assistant Secretary reviewed the recommendations of the bureaus that report to him, and established a consolidated priorities listing of recommended FY 1984 projects.

The integration of the Salaries and Expenses, Restoration and Renovation of Buildings and National Zoological Park Construction decision packages and the ranking of these decision packages was accomplished by the Executive Committee whose members include the Under Secretary, the Assistant Secretaries, the Treasurer, the General Counsel and the Executive Assistant to the Secretary. Following the principles stated in the initial guidance provided by the Secretary, the Executive Committee made decisions on priorities among the functional areas (these are described in the "Overview" for the Salaries and Expenses appropriation) that would be emphasized, specific items to be included in the construction request, and the ranking of the decision packages.

The final steps in the process consisted of review and final approval of the proposed FY 1984 budget by the Under Secretary and the Secretary. The Executive Committee of the Board of Regents has reviewed the proposed FY 1984 Federal budget, the FY 1983 nonappropriated Trust fund budget, and the FY 1984 nonappropriated Trust fund projection. Review of these budgets by the full Board of Regents is scheduled for September 20, 1982.

FY 1984 Proposed Budget

The following table shows the proposed Salaries and Expenses, Construction, and Special Foreign Currency appropriation accounts.

(\$000)		
<u>Appropriation</u>	<u>FY 1983 Appropriation Estimates</u>	<u>FY 1984 Budget Request</u>
Salaries and Expenses	\$144,110	\$154,498
Construction /1	46,500	15,115
Special Foreign Currency Program	<u>2,000</u>	<u>9,040</u>
Total	\$192,610	\$178,653

/1 Includes Restoration and Renovation of Buildings, National Zoological Park, and Quadrangle Appropriation (FY 1983) Accounts.

The Institution's FY 1984 request is designed to meet the most important Institutional requirements in order to foster efficient and effective utilization of base resources.

Specifically, in the Salaries and Expenses (S&E) appropriation, there are 13 decision packages of which eight are classified at the current services level. The proposed resources in these packages would enable the Institution to meet the statutory requirements of within-grade increases, of the merit pay provisions of the Civil Service Reform Act, and of the annualization of the anticipated FY 1983 pay raise; to cover higher rental costs to the Institution; and to help offset the effects of inflation in the expenses portion of the salaries and expenses budget consistent with economic assumptions supplied by the Office of Management and Budget. Funds are sought also to continue to meet the non-recurring equipment costs of the Museum Support Center (MSC). Moreover, because the MSC is scheduled for beneficial occupancy in January 1983, the major portions of staff and other operating requirements of the Center are requested.

Resources proposed in the remaining five current services packages are needed to provide adequate security for the National Collections which consist of more than 78 million art objects, natural history specimens and artifacts and for the approximately 25 million visitors each year to the Smithsonian museums and the National Zoological Park. There is strong emphasis also on paying needed attention to the basic maintenance of the Smithsonian physical plant which consists of 12 historic and monumental museum and gallery buildings in Washington, D.C. and New York City, and other facilities elsewhere. These facilities house research and collections management activities and a wide range of exhibitions in the fields of science, history, technology, and art. Recognizing the need to hold down requests for additional staffing, the Institution is proposing a modest investment in automated systems that will result in increased productivity of existing staff as well as in improved services. Research support needs of several bureaus are addressed, particularly those of new or replacement scientific equipment and funds for publication of research findings. There is provision for the curation of collections of African ethnography and art and of a donated Asian art collection to be housed in the Quadrangle. The Institution also proposes to establish a long-term loan program to institutions in all states involving the Hirshhorn collection which recently has doubled in size owing to Mr. Hirshhorn's bequest; for visitors to the Smithsonian, resources are sought to enable our Visitors Information and Associates Reception Center to offer improved services.

Enhancement decision packages address: remedial storage needs at the National Museum of Natural History/Museum of Man; a base shortage and a plant maintenance workload backlog in the Office of Plant Services; additional security equipment; a further increment to accelerate conversion to an automated library system; and new outreach programs of the Institution in Washington, D.C. and throughout the country.

Requests for additional staffing are confined to two purposes. These include essential operating and program support personnel for the Museum Support Center for which an additional 108 workyears are required for such basic needs as security, mechanical systems repair, buildings and grounds maintenance, health care, and the provision of a core administrative and programmatic staff.

The only other purpose for which additional staffing is sought is for security. With OMB and Congressional support during the past several years the Institution has been redressing on a phased basis its critical shortage of uniformed guards. This year's request for 48 additional guards seeks to move ahead in a major way with this effort, coupling it with a proposal for continued upgrading and replacement of security equipment.

With resources sought in the Restoration and Renovation portion of the construction request, progress is planned in repairing building facades, roofs and terraces of various historic and monumental buildings; upgrading, including planning and installation, of fire detection and suppression systems; providing improved access for the disabled and the correction of conditions that could be hazardous to the safety and security of the visiting public, staff and the collections; repairing and improving utility systems in several museums and collections storage buildings, including heating, ventilation and air conditioning systems and plumbing and electrical systems (these improvements would promote energy efficiency); making improvements in support of programmatic objectives at the Smithsonian's outlying facilities; and making general repairs and improvements that are required for a variety of purposes. The Zoo portion of this request will be used for further development of the Front Royal Conservation and Research Center with the construction of a veterinary hospital, and the third and final phase of the Small Animal Facility which will house various small animals, such as marmosets, tree kangaroos and small birds. The main function of the Conservation and Research Center is the breeding of rare and endangered species.

Finally, the Special Foreign Currency decision package includes funds to continue a program of grants to United States universities, museums and other institutions of higher learning for field research and professional training; for a second United States contribution to the international effort organized through UNESCO to restore and preserve the Indus civilization city of Moenjodaro in Pakistan; and for a third installment to the forward-funded reserve in support of future programs of the American Institute of Indian Studies.

Nonappropriated Trust Funds

Overview

In addition to Federal appropriations, the Institution has two major sources of nonappropriated funding. These are Smithsonian Trust funds which are derived from a variety of sources and Federal agency grants and contracts. Overall, between FY 1982 and FY 1988, nonappropriated Trust funds are expected to comprise an average of approximately 45 percent of gross operating revenues, and an average of approximately 17 percent of net operating revenues. The distinction between net and gross revenues is significant in that net revenues represent the funds that are available to the Institution after the expenses of auxiliary and bureau activities are deducted. It should be borne in mind that nonappropriated Trust fund projections of income are dependent upon forecasts of general economic conditions, and are, therefore, subject to a substantial degree of uncertainty.

The accompanying tables display the sources (Table 1) and the application (Table 2) of all operating funds projected to be available to the Institution from FY 1982 - FY 1988 following the format in the Institution's Five-Year Prospectus which will be transmitted to the Office of Management and Budget during September. In addition, a summary table is provided showing the sources and application of funds for the budget year (Table 3). (The proposed budgets have been reviewed by the Executive Committee of the Board of Regents; however, they are subject to approval by the full Board of Regents which is scheduled to meet on September 20, 1982.)

Proposed FY 1984 Nonappropriated Trust Fund Budget

For FY 1984, the Institution is projecting gross operating revenues of \$300.4 million of which \$154.5 million constitutes the requested Federal appropriation, \$8.1 million is the projected pay supplemental requirement, and \$137.8 million represents the gross total of all nonappropriated sources. In terms of net operating income, a total of \$199.5 million is projected to be available to the Institution in FY 1984, of which an amount of \$36.9 million is expected to be derived from nonappropriated sources. All monies coming to the Institution are dedicated to the same broad objectives of increasing and diffusing knowledge. There are, however, important differences in specific uses and in restrictions imposed on these funds. The following sections address the nonappropriated Trust fund budget by type of fund.

Unrestricted (General and Special Purpose) Funds

For FY 1984, a net amount of \$14.8 million in unrestricted Trust funds is expected to be realized for program and administrative purposes. The unrestricted funds are generated from endowment and current fund investments, concessions such as food services, parking fees, sales of Smithsonian products including records and books, the Resident and National Associates programs including Smithsonian magazine, the museum shops, as well as unrestricted gifts and bequests. The availability of these funds helps to reduce the need for additional Federal appropriations.

For FY 1984, these funds are expected to be used as follows (in general, consistent with uses in FY 1982 and FY 1983 and in the projections for FY 1985 - FY 1988):

1) An allotment (centrally administered) of \$2.2 million to be used for acquisitions for the collections and scholarly and educational programs. This program was instituted in FY 1978 for five years with an annual allotment of \$2 million. This allotment is recommended to be increased to \$2.2 million in FY 1983. Of this amount, \$1.1 million is available for purchase of major objects of importance to the collections. An additional \$550 thousand is designated for scholarly projects that do not lend themselves to planned Federal funding, including unanticipated research opportunities such as short-term biological studies, meteorite falls and volcanic eruptions. The remaining \$550 thousand is allocated to carry out innovative educational projects designed to reach those segments of the public that would not necessarily be served through ongoing programs.

2) An allotment of \$1.3 million to fund the Institution's centrally administered Fellowship Program, Regents fellowships and the Fellowship and Visiting Scholars Program of the Smithsonian Astrophysical Observatory and Radiation Biology Laboratory. These activities were funded with appropriated funds prior to FY 1979. Since FY 1979, Trust fund annual support of this program has increased by \$684 thousand.

3) Operating allotments totaling \$2.7 million to the Cooper-Hewitt Museum, the Folklife unit, the Office of Telecommunications, the Visitors Information and Associates Reception Center, and other small but important projects of other bureaus. These allotments also include a continuing \$125 thousand allotment for an equal employment opportunity Cooperative Education Program, a Minority Intern Program, a Career Awareness Program for senior high school students, and other affirmative action efforts.

4) An amount of \$2.6 million for the Institution's administrative and technical support costs not recovered from overhead assessed against grants and contracts administered by the Smithsonian or from administrative fees charged to other Trust funded activities./1

5) Transfer to plant funds of \$1.2 million for the Quadrangle project (in addition to the more than approximately \$6 million transferred between FY 1978 - FY 1983).

6) Annual transfer of \$2 million to the Institution's unrestricted endowment and other transfers totaling approximately \$400 thousand for fluid research awards, Smithsonian Society awards, and revenue sharing with the museums (offset in part by a portion of National Air and Space Museum theater proceeds which are transferred into the Institution's unrestricted general fund).

/1 Unrestricted Trust funds are allocated to the administrative and support units to provide an appropriate balance of funding between Federal appropriations and Trust funds, reflecting the services they provide.

7) A net amount of \$2.5 million is expected to be realized by the bureaus in special purpose funds and used for research, exhibitions, education and other purposes. These funds are generated from interest earned on the Institution's short-term investments, net proceeds of bureau activities, of which the National Air and Space Museum theater is the most prominent example, and other miscellaneous revenues.

Restricted Funds

Restricted income is expected to total \$7.7 million in FY 1984 and is derived primarily from investment income (endowment earnings and interest on current funds), gifts and grants for specific purposes, and from revenue-generating activities of the Freer Gallery of Art and the Archives of American Art. The larger part of restricted endowment investment income is dedicated to the Freer Gallery of Art and the Smithsonian Marine Station, Link Port, Florida for basic research purposes. The remaining restricted income provides support for specific research, exhibitions, and education projects for a wide range of units.

Federal Grants and Contracts

Grants and contracts awarded to the Smithsonian by government agencies and departments are expected to total \$14.4 million in FY 1984, an estimated increase of \$1.4 million over FY 1983. These grants and contracts are provided to the Smithsonian to support specific types of research, educational and other projects which the Institution can undertake as a result of its expertise or its ability to respond quickly to certain kinds of needs. Virtually all of these grants and contracts are anticipated for research conducted by the science bureaus of the Institution, mainly at the Smithsonian Astrophysical Observatory which has three programs, Infrared Telescope, Lyman-Alpha Coronagraph and LAMAR X-ray flight experiment anticipated to be on the space shuttle for the National Aeronautics and Space Administration.

SMITHSONIAN INSTITUTION
SOURCE OF OPERATING FUNDS
FY 1982 PROJECTED THROUGH FY 1988

(\$000)

Table 1

SOURCE OF OPERATING FUNDS	FY 1982	FY 1983	FY 1984	FY 1985	FY 1986	FY 1987	FY 1988
<u>Federal Salaries and Expenses</u>	130,770	144,110	154,498	167,069	186,558	193,076	205,280
.Plus cumulative effect of legislated pay raises	--	3,800	8,100	13,800	20,700	28,000	35,000
Subtotal	130,770	147,910	162,598	180,869	207,258	221,076	240,280
<u>Nonappropriated Trust Funds</u>							
<u>Unrestricted General</u>							
.Investments	2,840	2,800	2,850	2,925	3,000	3,100	3,200
.Gifts	50	50	50	50	50	50	50
.Auxiliary Activities	94,314	100,343	107,470	118,050	128,265	135,632	144,244
.Miscellaneous	50	50	50	50	50	50	50
Subtotal	97,254	103,243	110,420	121,075	131,365	138,832	147,544
<u>Unrestricted Special Purpose</u>							
.Investments	581	585	607	615	620	625	630
.Gifts	230	152	180	180	180	180	180
.Bureau Activities	2,983	3,240	3,765	3,825	4,000	4,125	4,250
.Miscellaneous	773	726	764	770	770	770	770
Subtotal	4,567	4,703	5,316	5,390	5,570	5,700	5,830
<u>Restricted</u>							
.Investments	2,706	2,816	2,827	2,850	2,900	2,950	3,000
.Gifts, Grants and Contracts	3,322	4,141	4,091	3,700	3,775	3,825	3,900
.Miscellaneous	937	777	792	800	800	800	800
Subtotal	6,965	7,734	7,710	7,350	7,475	7,575	7,700
<u>Federal Grants and Contracts</u>	13,404	13,032	14,391	14,776	15,850	17,099	17,789
Gross Income	252,960	276,622	300,435	329,460	367,518	390,282	419,143
Less Expenses of Auxiliary and Bureau Activities	(87,963)	(93,424)	(100,930)	(110,438)	(120,734)	(127,358)	(135,140)
Net Funds Provided	164,997	183,198	199,505	219,022	246,784	262,924	284,003

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1982 PROJECTED THROUGH FY 1988

(\$000)

Table 2 (1)

APPLICATION OF OPERATING FUNDS	FY 1982	FY 1983	FY 1984	FY 1985	FY 1986	FY 1987	FY 1988
<u>Science</u>							
•Federal Salaries and Expenses	44,545	47,297	48,474	51,366	53,237	54,728	56,057
•Unrestricted General							
-Program and Administrative*	309	226	234	238	245	254	262
-Auxiliary Activities	--	--	--	--	--	--	--
•Unrestricted Special Purpose							
-Bureau Activities	1,599	1,713	1,825	1,889	1,948	2,009	2,072
-All Other	1,412	1,567	1,621	1,651	1,698	1,765	1,835
•Restricted	2,858	2,555	2,758	2,942	2,801	2,862	2,909
•Federal Grants and Contracts	12,995	12,847	14,231	14,651	15,725	16,974	17,664
Subtotal	63,718	66,205	69,143	72,737	75,654	78,592	80,799
<u>History and Art</u>							
•Federal Salaries and Expenses	20,874	22,019	22,545	24,267	31,266	29,359	30,445
•Unrestricted General							
-Program and Administrative	728	673	665	666	646	607	587
-Auxiliary Activities	--	--	--	--	--	--	--
•Unrestricted Special Purpose							
-Bureau Activities	528	569	863	824	879	915	951
-All Other	788	702	690	731	771	841	882
•Restricted	3,557	4,128	3,584	3,585	3,537	3,492	3,574
•Federal Grants and Contracts	89	85	60	25	25	25	25
Subtotal	26,564	28,176	28,407	30,098	37,124	35,239	36,464
<u>Public Service</u>							
•Federal Salaries and Expenses	2,678	2,805	2,994	2,955	2,990	3,025	3,060
•Unrestricted General							
-Program and Administrative	777	807	881	925	971	1,019	1,070
-Auxiliary Activities	13,911	12,118	12,449	13,095	13,218	13,380	13,629
•Unrestricted Special Purpose							
-Bureau Activities	15	60	61	61	62	62	63
-All Other	102	102	52	2	2	2	2
•Restricted	16	93	30	51	51	51	51
•Federal Grants and Contracts	--	--	--	--	--	--	--
Subtotal	17,499	15,985	16,467	17,089	17,294	17,539	17,875
*Net of SAO Overhead Recovery							

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1982 PROJECTED THROUGH FY 1988

(\$000)

Table 2 (2)

APPLICATION OF OPERATING FUNDS	FY 1982	FY 1983	FY 1984	FY 1985	FY 1986	FY 1987	FY 1988
<u>Museum Programs</u>							
.Federal Salaries and Expenses	7,734	8,229	9,289	10,443	10,914	11,417	12,528
.Unrestricted General							
-Program and Administrative	300	274	304	316	332	348	365
-Auxiliary Activities	1,289	1,164	1,178	1,198	1,267	1,397	1,447
.Unrestricted Special Purpose							
-Bureau Activities	61	52	55	66	71	76	81
-All Other	12	2	5	2	2	3	3
.Restricted	442	954	740	309	310	311	312
.Federal Grants and Contracts	17	--	--	--	--	--	--
Subtotal	9,855	10,675	11,571	12,334	12,896	13,552	14,736
<u>Special Programs</u>							
.Federal Salaries and Expenses	7,899	10,220	11,575	10,305	10,060	10,355	10,620
.Unrestricted General							
-Program and Administrative	657	618	621	628	612	616	600
-Auxiliary Activities	--	--	--	--	--	--	--
.Unrestricted Special Purpose							
-Bureau Activities	12	13	9	11	11	11	11
-All Other	3,772	3,782	3,633	3,729	4,079	4,189	4,589
.Restricted	232	114	149	125	127	140	142
.Federal Grants and Contracts	303	100	100	100	100	100	100
Subtotal	12,875	14,847	16,087	14,898	14,989	15,411	16,062
<u>Associates Programs</u>							
.Federal Salaries and Expenses	--	--	--	--	--	--	--
.Unrestricted General							
-Program and Administrative	558	681	384	403	423	444	466
-Auxiliary Activities	48,619	54,813	59,448	64,148	69,495	74,109	79,851
.Unrestricted Special Purpose							
-Bureau Activities	9	10	11	11	12	12	12
-All Other	2	2	2	2	2	2	2
.Restricted	30	14	--	--	--	--	--
.Federal Grants and Contracts	--	--	--	--	--	--	--
Subtotal	49,218	55,520	59,845	64,564	69,932	74,567	80,331

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1982 PROJECTED THROUGH FY 1988

Table 2 (3)

(\$000)							
APPLICATION OF OPERATING FUNDS	FY 1982	FY 1983	FY 1984	FY 1985	FY 1986	FY 1987	FY 1988
<u>Business Management</u>							
.Federal Salaries and Expenses	--	--	--	--	--	--	--
.Unrestricted General							
-Program and Administrative	--	--	--	--	--	--	--
-Auxiliary Activities	21,810	22,825	24,921	29,019	33,650	35,260	36,890
.Unrestricted Special Purpose							
-Bureau Activities	--	--	--	--	--	--	--
-All Other	--	--	--	--	--	--	--
.Restricted	--	--	--	--	--	--	--
.Federal Grants and Contracts	--	--	--	--	--	--	--
Subtotal	21,810	22,825	24,921	29,019	33,650	35,260	36,890
<u>Administrative, Financial and Technical Services</u>							
.Federal Salaries and Expenses	9,299	10,029	10,308	10,951	11,347	11,576	11,872
.Unrestricted General							
-Program and Administrative*	581	737	968	1,084	1,494	2,001	2,403
-Auxiliary Activities	108	86	109	115	120	126	132
.Unrestricted Special Purpose							
-Bureau Activities	1	--	--	--	--	--	--
-All Other	81	98	101	102	103	108	112
.Restricted	96	124	70	74	68	68	68
.Federal Grants and Contracts	--	--	--	--	--	--	--
Subtotal	10,166	11,074	11,556	12,326	13,132	13,879	14,587
<u>Facilities Services</u>							
.Federal Salaries and Expenses	37,926	43,511	45,899	49,182	53,644	55,516	58,098
.Unrestricted General							
-Program and Administrative	1,119	1,088	1,207	1,266	1,329	1,395	1,464
-Auxiliary Activities	--	--	--	--	--	--	--
.Unrestricted Special Purpose							
-Bureau Activities	1	1	1	1	1	1	1
-All Other	111	9	10	11	11	11	11
.Restricted	1	1	2	2	2	2	2
.Federal Grants and Contracts	--	--	--	--	--	--	--
Subtotal	39,158	44,610	47,119	50,462	54,987	56,925	59,576
*Net of SI Overhead Recovery							

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1982 PROJECTED THROUGH FY 1988

(\$000)

Table 2 (4)

APPLICATION OF OPERATING FUNDS	FY 1982	FY 1983	FY 1984	FY 1985	FY 1986	FY 1987	FY 1988
<u>Inflation and Pay Requirements</u>							
•Federal Salaries and Expenses							
-Necessary Pay	--	--	1,400	2,900	4,500	6,100	7,800
-Inflation	--	--	2,014	4,700	8,600	11,000	14,800
-Supplemental	--	3,800	8,100	13,800	20,700	28,000	35,000
Subtotal	--	3,800	11,514	21,400	33,800	45,100	57,600
<u>Institutional Total</u>							
•Federal Salaries and Expenses	130,955	147,910	162,598	180,869	207,258	221,076	240,280
•Unrestricted General							
-Program and Administrative	5,029	5,104	5,264	5,526	6,052	6,684	7,217
-Auxiliary Activities	85,737	91,006	98,105	107,575	117,750	124,272	131,949
•Unrestricted Special Purpose							
-Bureau Activities	2,226	2,418	2,825	2,863	2,984	3,086	3,191
-All Other	6,280	6,264	6,114	6,230	6,668	6,921	7,436
•Restricted	7,232	7,983	7,333	7,088	6,896	6,926	7,058
•Federal Grants and Contracts	13,404	13,032	14,391	14,776	15,850	17,099	17,789
Gross Funds Applied	250,863	273,717	296,630	324,927	363,458	386,064	414,920
Less Expenses of Auxiliary and Bureau Activities	(87,963)	(93,424)	(100,930)	(110,438)	(120,734)	(127,358)	(135,140)
<u>Net Funds Applied Before Transfers</u>							
•Federal Salaries and Expenses	130,955	147,910	162,598	180,869	207,258	221,076	240,280
•Unrestricted General	5,029	5,104	5,264	5,526	6,052	6,684	7,217
•Unrestricted Special Purpose	6,280	6,264	6,114	6,230	6,668	6,921	7,436
•Restricted	7,232	7,983	7,333	7,088	6,896	6,926	7,058
•Federal Grants and Contracts	13,404	13,032	14,391	14,776	15,850	17,099	17,789
Net Before Transfers	162,900	180,293	195,700	214,489	242,724	258,706	279,780

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1982 PROJECTED THROUGH FY 1988

(\$000)

Table 2 (5)

APPLICATION OF OPERATING FUNDS	FY 1982	FY 1983	FY 1984	FY 1985	FY 1986	FY 1987	FY 1988
<u>Transfers: Out/(In)</u>							
•Current Funds Transfers (Internal)							
-Unrestricted General	3,375	3,723	3,953	4,102	4,537	4,684	5,123
-Unrestricted Special Purpose	(3,375)	(3,723)	(3,953)	(4,102)	(4,537)	(4,684)	(5,123)
•Current Funds to Plant Improvement							
-Unrestricted General	1,045	1,500	1,200	2,000	--	--	--
-Unrestricted Special Purpose	25	(225)	25	--	--	--	--
•Current Funds to Endowment							
-Unrestricted General	2,021	2,021	2,021	2,021	3,021	3,021	3,021
-Unrestricted Special Purpose	230	--	--	--	--	--	--
-Restricted	110	120	120	120	120	120	120
Total Transfers	3,431	3,416	3,366	4,141	3,141	3,141	3,141
<u>Net Changes In Fund Balance:</u>							
Increase (Decrease)							
•Federal Salaries and Expenses*	(185)	--	--	--	--	--	--
•Unrestricted General	47	(111)	(123)	(149)	5	171	234
•Unrestricted Special Purpose	(819)	(31)	305	399	455	377	326
•Restricted	(377)	(369)	257	142	459	529	522
•Federal Grants and Contracts	--	--	--	--	--	--	--
Subtotal	(1,334)	(511)	439	392	919	1,077	1,082
<u>Net Funds Applied</u>							
•Federal Salaries and Expenses	130,770	147,910	162,598	180,869	207,258	221,076	240,280
•Unrestricted General	11,517	12,237	12,315	13,500	13,615	14,560	15,595
•Unrestricted Special Purpose	2,341	2,285	2,491	2,527	2,586	2,614	2,639
•Restricted	6,965	7,734	7,710	7,350	7,475	7,575	7,700
•Federal Grants and Contracts	13,404	13,032	14,391	14,776	15,850	17,099	17,789
Net Funds Applied	164,997	183,198	199,505	219,022	246,784	262,924	284,003
*Balance of funds for Franklin Delano Roosevelt celebration available through FY 1982							

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SMITHSONIAN INSTITUTION
Source and Application of Operating Funds
Estimate FY 1984

Table 3

(Excludes Special Foreign Currency Funds, Plant Funds, and Endowments)

OPERATING FUNDS	Federal	Federal	Unrest. Trust Funds		Restricted	Total
	Approps.	Gr. & Cont.	General	Sp. Purp.	Trust Fds.	Op. Funds
<u>Funds Provided:</u>						
Federal Appropriation**	154,498	--	--	--	--	154,498
Investments	--	--	2,850	607	2,827	6,284
Gifts, Grants & Contracts	--	14,391	50	180	4,091	18,712
Self-generated - Gross Rev.						
Auxiliary Activities	--	--	107,470	--	--	107,470
Bureau Activities	--	--	--	3,765	--	3,765
Other Miscellaneous	--	--	50	764	792	1,606
Total Income	154,498	14,391	110,420	5,316	7,710	292,335
Less Expenses - Self-Generated						
Auxiliary Activities	--	--	(98,105)	--	--	(98,105)
Bureau Activities	--	--	--	(2,825)	--	(2,825)
Net Funds Provided	154,498	14,391	12,315	2,491	7,710	191,405
<u>Funds Applied: (Net)</u>						
Science	48,474	14,231	2,784	1,621	2,758	69,868
Less: SAO O/H Recovery	--	--	(2,550)	--	--	(2,550)
History & Art	22,545	60	665	690	3,584	27,544
Public Service	2,994	--	881	52	30	3,957
Museum Programs	9,289	--	304	5	740	10,338
Special Programs	11,575	100	621	3,633	149	16,078
Associates Pgms./Business Mgmt.	--	--	384	2	--	386
Administration - SI	13,722*	--	6,868	101	70	20,761
Less: SI O/H Recovery	--	--	(5,900)	--	--	(5,900)
Facilities Services	45,899	--	1,207	10	2	47,118
Total Funds Applied	154,498	14,391	5,264	6,114	7,333	187,600
<u>Transfers: Out (In)</u>						
Current Funds						
-Bureau Revenue Sharing	--	--	393	(393)	--	--
-NASM Theater	--	--	(350)	350	--	--
-Fellowships	--	--	1,310	(1,310)	--	--
-Special Programs	--	--	2,400	(2,400)	--	--
-Other	--	--	200	(200)	--	--
Plant Funds	--	--	1,200	25	--	1,225
Endowment Funds	--	--	2,021	--	120	2,141
Total Transfers	--	--	7,174	(3,928)	120	3,366
<u>Change in Fund Balance</u>	--	--	(123)	305	257	439
<u>Ending Fund Balance</u>	--	405	4,856	12,054	5,057	22,372

*Includes an amount of \$3,414 thousand for necessary pay and inflation which has not been distributed by unit.

**Amount does not include an estimated \$8.1 million pay supplemental requirement.

(In thousands of dollars)

SMITHSONIAN INSTITUTION
1984 Budget
Summary of Ranking

Ranking Numbers	Package Description			Decision Package Amounts			Cumulative Amounts		
	Type	Level	Comments	BA	Outlays	FTP Work- Years	BA	Outlays	FTP Work- Years
1.	Salaries and Expenses Package 1	Current Services	Scheduled pay increases and rent increases	1,855	1,855	--	145,815	144,501	3,270
2.	Salaries and Expenses Package 2	Current Services	Inflation	2,014	2,014	--	147,829	146,515	3,270
3.	Construction Package 1	Current Services	Restoration and Renovation of Buildings; Construction, NZP	12,500	26,250	--	160,329	172,765	3,270
4.	Salaries and Expenses Package 3	Current Services	Museum Support Center - related costs	1,355	1,355	107	161,684	174,120	3,377
5.	Salaries and Expenses Package 4	Current Services	Security	(136)	--	48	161,548	174,120	3,425
6.	Salaries and Expenses Package 5	Current Services	Automation	915	915	--	162,463	175,035	3,425
7.	Salaries and Expenses Package 6	Current Services	Research	427	427	--	162,890	175,462	3,425
8.	Salaries and Expenses Package 7	Current Services	Buildings and Facilities Management	430	430	--	163,320	175,892	3,425
9.	Salaries and Expenses Package 8	Current Services	Education and Public Orientation	280	280	--	163,600	176,172	3,425
10.	Salaries and Expenses Package 9	Enhancement	Collections Management	500	500	--	164,100	176,672	3,425
11.	Salaries and Expenses Package 10	Enhancement	Buildings and Facilities Management	964	964	--	165,064	177,636	3,425
12.	Salaries and Expenses Package 11	Enhancement	Security	1,000	1,000	--	166,064	178,636	3,425
13.	Salaries and Expenses Package 12	Enhancement	Automation	350	350	--	166,414	178,986	3,425
14.	Salaries and Expenses Package 13	Enhancement	Exhibitions and Performances	584	584	--	166,998	179,570	3,425
15.	Construction Package 2	Enhancement	Restoration and Renovation of Buildings	2,615	1,000	--	169,613	180,570	3,425

Rationale of the Decision Package Ranking

The FY 1984 budget submission includes 15 decision packages which are ranked according to relative priority. In general, the first nine decision packages are classified as current services and address mainly programs that are essential to the efficient and effective functioning of the Institution. The six remaining packages also address fundamental needs and are only classified as enhancements because they exceed the OMB target figure.

Specifically, the first two decision packages are required to cover the costs of a) necessary pay (within-grade and merit pay increases and pay raise annualization) and higher rent estimates; and b) inflation in nonsalary objects of expense, following Office of Management and Budget pricing guidelines. The Construction accounts, including Restoration and Renovation of Buildings (R&R) and the National Zoological Park following its Master Plan, are very important to the Institution and accordingly are ranked as the third decision package. The draft Five-Year Prospectus: FY 1984-FY 1988 identifies a program of Restoration and Renovation work that will cost approximately \$69.3 million. The proposed FY 1984 R&R program builds on past efforts to maintain the physical plant in proper condition and to correct existing problems. The FY 1984 request for the Zoo will permit necessary maintenance and repair and further development of the Conservation and Research Center in Front Royal, Virginia. The fourth decision package includes resources for operating and program staff and support costs of the Museum Support Center which will be completed during FY 1983, a further portion of the funds required for the purchase of storage and laboratory equipment and furnishings, and an additional increment for the move of collections to be relocated to the Center.

The following four decision packages within the current services level would permit correction of remedial security needs, continuing a program anticipated to begin in FY 1983; provide a modest investment in automated systems which would result in near and long-term efficiencies and curtail the need for additional staff, particularly in the Smithsonian Institution Libraries; accommodate research support needs, increasing the effectiveness of Smithsonian research program and fostering more efficient utilization of research staff; and correct various deficiencies in monies available for the care and maintenance of our buildings and grounds. A final current services decision package is designed to promote vastly increased public accessibility to the Smithsonian collections, benefiting the visiting public to Smithsonian museums in Washington, D.C. and in all states throughout the country.

The first three enhancement level decision packages also address remedial problems. The first includes resources to begin a program to correct a very serious collection storage problem at the National Museum of Natural History/Museum of Man. The second would permit extended use of contractual services to clear up a backlog in the repair of building components and utility systems in Smithsonian buildings and to correct a base deficiency in the Office of Plant Services and the third would provide for a further increment of security equipment, in addition to the request in the current services level.

The next decision package would permit the completion of automation of the Smithsonian Institution Libraries which would be initiated with resources proposed in a previous decision package. Resources sought in the subsequent decision package would extend the accessibility of Smithsonian programs in Washington, D.C. through support of live performances and throughout the country through development of four exhibitions for the Smithsonian Institution Traveling Exhibition Service.

The final decision package identifies additional projects within the Restoration and Renovation of Buildings appropriation that could be accomplished, thus diminishing the amount of planned work necessary in future years.

DECISION UNIT OVERVIEW
Smithsonian Institution
Salaries and Expenses: 33-0100-0-1-503

Long-range goal: To promote the increase and diffusion of knowledge through original historical, cultural and scientific research; to develop and properly care for the National Collections which represent invaluable resources for both study and display; to sponsor public programs including exhibitions, performances, publications and educational services; and to provide services to museums both in the United States and abroad.

Major objectives:

To accomplish the long-range goal of the Institution, the Smithsonian conducts a broad variety of programs, many in cooperation with other institutions, universities, and government agencies in the United States and abroad. These programs are described in terms of functional categories throughout this budget. These functional categories, in turn, represent the Institution's major objectives with overall resources detailed in terms of these categories. The functions include:

-- Collections management: The Smithsonian Institution has the legal responsibility (20 U.S.C. 59) to serve as the official repository of the National Collections which are estimated to contain more than 78 million art, technological, cultural history and ethnographic objects, and natural history specimens. The responsibility involves the acquisition, documentation and conservation of these materials along with detailed record keeping or cataloguing, regular inventorying, and storage in secure and atmospherically controlled environments. Objects and collections are loaned regularly to other institutions to assist students, scientists, and scholars, and for purposes of public education and enrichment.

-- Basic research: Increase of knowledge is accomplished through basic research. As an independent Federal establishment, the Smithsonian conducts a broad range of scientific and scholarly research, often in cooperation with other institutions, universities and government agencies. As a result of basic scientific research, fundamental data are assembled and published for use by planners and researchers in other organizations, both government and private. In addition, data serves as the keystone for public exhibitions and for the development of educational materials to the general public. Historical research, through studies in technological development, art, cultural history, biography and folklife traditions, contributes to the knowledge about our heritage and about the nation's growth and development.

-- Exhibitions, including performances and festivals or celebrations: These presentations constitute one means of diffusing knowledge on a wide scale. In Washington, D.C. and New York, Smithsonian museums, galleries, and the Zoological Park, which are visited by over 25 million people annually, devote exhibit space to showing significant objects, specimens, and animals from the permanent collections. In addition, temporary exhibitions with loan materials enhance these presentations, adding fresh concepts and ideas which further enrich visitor experiences. Through the Smithsonian Institution Traveling Exhibition Service, some 140 exhibitions are seen annually by an estimated seven million visitors in approximately 600 institutions across the country. Live performances, festivals, celebrations, lectures and records also are enjoyed by millions of people in the Smithsonian museums as well as in institutions elsewhere and in private homes throughout the nation. Such programs are produced by the Division of Performing Arts, the National and Resident Associates Programs, the Folklife Unit and by the individual museums.

-- Education and Public Orientation: One of the most important means of diffusing knowledge is through the education programs of the Institution. These programs offer enormous variety in content and form; they range from in-depth scholarly symposia to activities for fun and enjoyment, and reach all ages from young children to senior citizens. They include classes and workshops, guided tours by trained docents and radio, television, and motion picture programs sponsored by the individual museums and by centralized offices including Fellowships and Grants, Symposia and Seminars, and Elementary and Secondary Education. A highly significant aspect of the education effort involves production each year of several hundred publications including museum catalogues, books, scholarly monographs, articles, papers, the Archives of American Art Journal, and Smithsonian magazine which is received by over 1.9 million Resident and National Associates. At any given time, there are likely to be two to three hundred visiting scholars, scientists and students working throughout the Institution in various collections, laboratories and offices. The Smithsonian News Service now reaches an estimated 90 million readers of some 1,423 newspapers throughout the country and abroad. Art to Zoo, a publication for elementary and secondary school teachers, is sent to 15,000 schools in all states. Finally, as another educational endeavor, the Institution's Office of Museum Programs offers assistance to museums across the country and abroad by conducting museum training courses, producing and distributing audio-visual programs on conservation principles and techniques, and through the National Museum Act by awarding grants for museum research and training.

-- Collections acquisition: The Smithsonian museums acquire works of art, artifacts, specimens and other objects in three ways: by field collecting, by donation and by purchase. Collecting and donation are and will continue to be the major means for acquiring material for the collections. However, donations and even collecting for the most part, may not result in well planned development. If the National Collections are to be fully representative, and if the Institution's research

and exhibition programs are to thrive, the collections must grow by thoughtful design. To meet this responsibility and challenge, the Smithsonian seeks approximately \$900 thousand annually in Federal funds for five history and art museums to purchase a variety of relatively inexpensive works of art. To supplement this amount and to provide for the purchase of more expensive works, the Institution has provided an amount of \$1 million annually since FY 1978 of its nonappropriated Trust funds. Beginning in FY 1983, an amount of \$1.1 million will be provided for this purpose, funds permitting.

In order to carry out these functions, certain services, including facilities management, protection services and administration provide required support. The Smithsonian has the responsibility for the maintenance, operation and protection of a large complex of buildings and other facilities centered and located mostly in Washington, D.C., but with important components elsewhere. The Institution also provides architectural and engineering services for major repairs, alterations, and improvements to the physical plant. The Smithsonian complex presently consists of 11 exhibition buildings in Washington, D.C. and New York City in the fields of science, history, technology and art; a zoological park, and an animal conservation and research center at Front Royal, Virginia; the Anacostia Neighborhood Museum, which performs research and exhibit activities in a low income area of the city of Washington in cooperation with the community; a preservation, storage, and air and space-craft display facility at Suitland, Maryland which is also the site of the Museum Support Center now nearing completion; two natural reserves, in the Republic of Panama and on the Chesapeake Bay; an oceanographic research facility at Link Port, Florida; astrophysical centers in Cambridge, Massachusetts and Mt. Hopkins, Arizona, as well as small satellite tracking centers in several foreign countries; and supporting administrative, laboratory and storage areas.

Current Method of Accomplishing Work:

A cooperative decentralization characterizes the structure and operation of the Smithsonian's museums and research bureaus. The research, collections management, exhibition, education and collections acquisition efforts are conducted largely by individual museums, galleries, the Zoo and research laboratories. Education, exhibit and custodial staff, formerly located centrally, now are placed within the museums in accord with a policy that gives responsibility to directors for the management of their own programs and buildings. The Secretary and Under Secretary provide overall planning and policy guidance and monitor the effectiveness of Smithsonian operations. The role of the program assistant secretaries is to provide guidance and oversight to the various museums and programs within their areas of responsibility. Other specialized administrative and support units are managed centrally in order to promote efficiency and cost effectiveness. These include such components as general counsel, treasurer, public information, budget, accounting, personnel, equal employment opportunity, computer services, facilities services, design and construction, management analysis, printing and photographic services, contracting and supply, and travel services.

Alternatives:

The major alternative to the overall Smithsonian policy of cooperative decentralization would be recentralization of the major programmatic activities. Previous experience under this policy has made it clear that centralization would mean loss of the flexibility and creativity essential to provide the wide range of services the Institution offers.

Administrative and support areas continue to contract for a wide range of professional and technical services to augment staff competence and to offset the need to increase staff size. Many maintenance and security tasks have been performed under contract for years. Examples are trash removal, elevator and escalator servicing, laundry and dry cleaning of uniforms, veterinary service, pest control, and security and communications equipment maintenance. This fiscal year, prompted by the need to conserve workyears, the tasks of elevator operation and checkroom attending in our museums have been put under contract. These appear to be working well. The Institution expects to award a small contract for custodial care at its Service Center on North Capitol Street. This will be the first use of a contractor for routine cleaning. The contract will be monitored closely to determine if the approach is applicable to other buildings. Presently, under consideration also is the use of contractor personnel as guards in exhibition areas. Any such use would be on an initial limited test basis subject to close review. No such use is considered desirable in the more sensitive areas of entrances, exits, and storage areas. As in the maintenance and security functions, the Smithsonian uses contract help where the work is beyond our in-house capability (major repairs and renovations) or where in-house augmentation (exhibit and physical plant design services, exhibits fabrication, and photographic processing) is required. This blend of in-house and contractor-provided work works well and appears to be a good balance for work accomplishment, costs, consistency of operations throughout the Institution, and adequate management control over functions which relate to security of collections, protection of visitors, maintenance of a valuable physical plant, and other responsibilities.

For exhibitions and performances, there are several alternatives to substantial additional Federal funding for major new exhibitions. First, the Institution, as inflation grows, could mount increasingly smaller and less comprehensive shows, using available base funds. Or, the Institution could mount fewer and fewer exhibitions. Either alternative would serve to lessen the vitality of the museums, reduce research and educational endeavors and resulting publications, and decrease professional motivation and morale. Another alternative would be for the Institution to rely on private, principally corporate fund-raising efforts. However, the uncertainty of such outside financing and its potential effect on program content defeats necessary long-range planning for exhibits development.

The only major alternative to the present method of performing research at the Smithsonian is the development of a highly centralized mechanism which would direct the work of each bureau and scientist by specific tasks. While this approach is successful in certain mission-oriented agencies, it would not readily apply to the Smithsonian which performs basic research. The collection of fundamental data from the Institution's collections or observations cannot be centrally directed, since the immediate objective of Smithsonian research is to add to man's knowledge regardless of immediate application. The present approach of managing Smithsonian science is important to mission-oriented agencies and industry which cannot devote the necessary resources for developing a basic research infrastructure. The major breakthroughs in the application of science are usually derived from years of intensive basic research, a key element that the Smithsonian provides to the nation.

Accomplishments:

A selection of specific accomplishments by functional category follows.

Research:

-- The Smithsonian Astrophysical Observatory (SAO) has used its Multiple Mirror Telescope, located at Mt. Hopkins, Arizona, to study motions in clusters of galaxies at more than a billion light years. This probe into the distant past will begin to answer the very fundamental questions of how galaxies and clusters of galaxies formed and evolved.

-- A program at the Smithsonian Astrophysical Observatory to develop plasma diagnostic techniques and new instrumentation for ultraviolet coronagraphic observations of the sun is providing exciting new insights into solar wind generation and energy transport in the corona. The third launch of the rocket ultraviolet coronagraph occurred in July 1982 as scheduled and was successful in collecting data.

-- Watershed monitoring continued at the Chesapeake Bay Center for Environmental Studies for a tenth year in FY 1982, making the Center's program the longest one in the United States. Over two dozen papers have resulted from the program and these will be reviewed at a major national conference on watershed research to be held at the Chesapeake Bay Center in FY 1983.

-- Several significant publications have resulted from staff research at the National Air and Space Museum during FY 1982 including: The Bleriot XI; Story of Classic Aircraft, Bellanca C.F.; The Emergence of the Cabin Monoplane in the U.S.; Red Phoenix; The Rise of Soviet Air Power, 1941-1945; Bringing Aerodynamics to America; The History of Modern Astronomy and Astrophysics; and The Rocket Societies.

-- In FY 1982 the National Zoological Park received for the second consecutive year the highest award of the American Association of Zoological Parks and Aquariums for captive propagation.

-- Research conducted by a scientist at the Smithsonian Tropical Research Institute in Panama led to the accurate prediction of the northward migration of the Africanized honeybees into Panama. Studies of their effects on agriculture are continuing, with the aim of developing control measures before migration reaches the United States at the end of this decade.

-- Smithsonian Tropical Research Institute scientists have shown that the green iguana, a traditional source of food in Central America, is as efficient as cows and sheep in digesting plant material and therefore could be raised commercially as a food source.

-- The Smithsonian Tropical Research Institute continued to serve as an international center for research for over 1,300 scientific visitors in FY 1982 from over 90 university or research centers around the world.

-- In a cooperative project between the Chesapeake Bay Center and the Radiation Biology Laboratory, for the first time anywhere in the world, continuous monitoring was achieved for twelve month's duration of the spectral quality of underwater light in an estuary. By monitoring the spectral quality of underwater light, a measure of plant productivity can be made. This indirectly provides a measure of seafood productivity, an important commercial aspect of the Chesapeake Bay region.

-- Research at the Radiation Biology Laboratory has indicated that plant productivity in greenhouses maintained at low temperatures can be increased by 40 percent if additional infrared heat sources are used to increase leaf temperatures without increasing ambient air temperatures. Such conditions provide a more cost-effective and less energy dependent system for growing plants in an indoor environment.

-- The results of a recent study conducted by anthropologists at the National Museum of Natural History/Museum of Man of correlations between lifestyle and human health has indicated that pre-historic hunters were far healthier than farmers of the same period. Changes in diet, change to more sedentary habits and increased possibilities of disease in stable communities are among the causes being studied to explain their observations.

-- Research on a variety of topics in American social and technological history at the National Museum of American History culminated in the publication of several books and exhibit catalogues during FY 1982, including: FDR: The Intimate Presidency; George Washington: A Figure Upon the Stage; Yankee Enterprise: The Rise of the American System of Manufacturers; Emulation and Invention; The John Bull: 150 Years a Locomotive; and So Proudly We Hail.

-- Research findings of curators at the Freer Gallery of Art were made available to the public during FY 1982 through catalogues such as "Chinese Art of the Warring States Period," articles such as in "Arts Orientalis" and the Encyclopedia of Japan, leaflets such as "Japanese Ceramics" and "Chinese Painting," and public lectures at the Freer and at other institutions.

-- During FY 1982, the Joseph Henry Papers will complete the research for Volume 5 of The Papers of Joseph Henry -- the pioneer American physicist and the first Secretary of the Smithsonian Institution. Covering the years 1841-1843, this volume will document Henry's contributions to knowledge on optics and electromagnetism and his increasing involvement in national science policy.

-- Research associated with a very active exhibitions program at the Cooper-Hewitt Museum resulted in a major publication on "Scandinavian Design 1880-1980," and several catalogues including ones on the eighteenth century interior designer, Robert Adam; the Museum's entire collection of landscape drawings; and the Museum's collection of lace.

-- Work has progressed on projects of longstanding interest to curators at the National Portrait Gallery and preparation for publications such as the complete catalogue of the engraved portraits by C.B.J.F. de Saint-Memin, eighteenth century American graphic portraits, and the multi-volume letterpress edition of Selected Papers of Charles Willson Peale and His Family.

Exhibitions and Performances:

-- The National Museum of American History inaugurated the comprehensive redevelopment of its exhibits spaces with the opening, in February 1982, of a major exhibition on George Washington and his times, while work continued on the exhibitions to follow in the next four years redescribing American social and cultural history in the 18th, 19th, and 20th centuries. Another major exhibition, "FDR: The Intimate Presidency," opened in January 1982, commemorating the 100th anniversary of Franklin Delano Roosevelt's birth.

-- "Celebration: A World of Art and Ritual," co-sponsored by the National Museum of American Art and the Office of Folklife Programs, opened in FY 1982 at the Renwick Gallery. The exhibition features approximately 600 folk and traditional objects (most of them never displayed before), drawn from Smithsonian collections, illustrating how different world cultures mark the important events and cycles in the lives of their people. The exhibition also serves as the centerpiece for special live performances, presentations, demonstrations, film showings and other programs which enhance its educational value.

-- In FY 1982, the National Museum of African Art presented three major exhibitions which focussed thematically on aspects of African art and culture: "Life...Afterlife: African Funerary Sculpture," "The Stranger Among Us," and "Thinking with Animals: African Images and Perceptions." A diverse series of public programs accompanied these exhibitions.

-- At the Freer Gallery of Art, major exhibitions during FY 1982 included: "Chinese Paintings: Recent Accessions" (thirty works dating from the 16th through 19th centuries); "Genre Screens" (a colorful representation of the daily lives of the Japanese people of the 17th to mid-19th centuries); "Japanese Prints" (thirty delicately-colored wood block prints dating from the 18th and 19th centuries by the Ukiyo-e school); "Luminous Shadows" (paintings and ceramics of the kind collected by Ashikaga Shoguns of the Muromachi period, 1334-1573); "Winter into Spring: American Landscape Painting" (paintings by American artists of the late 19th and early 20th centuries using a seasonal theme common to both East and West); and the Freer's first photographic exhibition, entitled, "Antoine Sevruguin: Photographer of the Qajar Iran" (a rich visual record of the period circa 1885 to 1930 in Iran illustrated in 24 photographs selected from the Freer's Islamic Archive).

-- Cooper-Hewitt exhibitions during FY 1982 include: "Suburbs;" "In Small Stages, Puppets from the Cooper-Hewitt Collection;" "City Dwellings and Country Houses, Robert Adam and His Style;" "Hawaii the Royal Isles;" "English Majolica;" "Lace;" "Fashion Prints;" "Columns;" "Buttons;" "American Landscape Drawings;" and "Scandinavian Design 1880-1980." By the close of FY 1982, the Museum will have presented some 85 exhibitions since it opened to the public in October 1976 in the Carnegie Mansion in New York City.

-- The Hirshhorn Museum and Sculpture Garden continued an active exhibition program in FY 1982 with exhibitions on the works of R.B. Kitaj (which opened at the Museum in 1981 and then traveled to the Cleveland Museum and Dusseldorf in FY 1982); "Metaphor: New Projects by Contemporary Sculptors;" "De Stijl: 1917-1931, Visions of Utopia;" and "Raphael Soyer, Prints" and "Raphael Soyer Paintings 1970-1980."

-- Exhibitions at the National Portrait Gallery during FY 1982 included: "Portraits by George W. Bellows;" "FDR: The Early Years;" "An American Icon: The 18th Century Image of George Washington in Prints and Illustrations;" "Webster, The God-like Black Dan;" "American Portraiture in the Grand Manner 1720-1920;" and "Selections from the Frederick Hill Meserve Collection."

-- The three year task of renovating the Dinosaur Hall in the National Museum of Natural History/Museum of Man (NMNH/MOM) was completed and reopened to the public early in FY 1982 to wide critical acclaim and popularity. In the new Thomas Evans Special Exhibits Gallery which opened in July 1981, the Museum presented an exhibition entitled, "Inua: Spirit World of the Bering Sea Eskimo." The exhibition features hundreds of exquisite artifacts collected over 100 years ago, prior to any significant outside influence into the Bering Sea area. This exhibition is part of a policy by the NMNH/MOM to display previously unshown material in this new exhibit area.

-- The Smithsonian Institution Traveling Exhibition Service's (SITES) major show, "American Impressionism," which opened in March 1982, was the first exhibition of paintings by American artists to be shown at the Petit Palais in Paris. After being viewed there by record breaking audiences, the show traveled to East Berlin, and will go on to Vienna, Sofia, and Bucharest. Catalogues, in the language of the host country, will be provided at each exhibition.

-- Among the newly organized SITES exhibitions which will tour the United States are: "Before 1984: Past Visions of American Futures;" "China from Within;" an exhibition from Thailand, "Ban Chiang: Discovery of a Lost Bronze Age;" and "The Seasonal Trade: Holiday Gift Cards."

-- Six Smithsonian Institution Libraries exhibitions: "The John H. Phipps Donation;" "The Fine Press Books;" "Women's Costumes in Trade Literature;" "Publications of Thomas Brown;" "Introduction to the SIL Book Conservation Laboratory;" and "Old Books, Rare Books," were presented in 1982.

Collections Management:

-- Special accelerated inventory work at the National Museum of Natural History/Museum of Man, National Museum of American History and the Cooper-Hewitt Museum is proceeding satisfactorily toward a scheduled completion date in June 1983. In each of the museums, inventory standards and methods, including data gathering and recording systems and collection condition reports, have been developed.

-- The National Museum of African Art will complete by the end of FY 1982 an inventory of the Museum's permanent collection of approximately 8,500 objects.

-- The National Museum of American Art made major progress during FY 1982 on its effort to preserve a collection of 127,000 photographic negatives documenting American art and artists spanning the first three-quarters of the 20th century.

-- In FY 1982, the Archives of American Art microfilmed 135 collections. Two hundred-forty master negative rolls containing over 270,000 items were produced. Seven hundred-forty positive copies of microfilm were produced and distributed to regional centers for use by researchers. Two hundred eighty-seven collections were received in the Washington Processing Center. Representing some 200,000 items, these collections have been catalogued, inventoried and provided conservation treatment.

-- At the National Portrait Gallery, preparation of the updated manuscript for the next edition of The Illustrated Checklist of the Permanent Collection, with acquisitions through September 30, 1981, was completed in FY 1982. The volume is expected to be produced by the Smithsonian Institution Press by the end of this fiscal year.

-- The National Air and Space Museum has placed approximately 100,000 photographs on video disc to facilitate access, reduce storage requirements and ensure proper conservation of significant items. This is a prototype program for the United States museum community.

-- The Conservation Analytical Laboratory has advised the National Museum of American History on the condition of fibers of the Star Spangled Banner so that a safe cleaning method could be developed. The flag has been veiled and the process of removing fine dust from surface fibers has begun.

Education and Public Orientation:

-- "Smithsonian Galaxy," a series of two and one-half minute radio features on all aspects of the Institution, won first place in the general interest category for information programs at the "First Annual International Radio Festival" in New York. "Smithsonian Galaxy" is heard on 212 radio stations nationwide and reaches an estimated audience of 16 million people weekly. "Here at the Smithsonian," a new series of short television features patterned after the "Smithsonian Galaxy" is making its debut on a select group of television stations across the country.

-- The record album "Smithsonian Collection of Classic Country Music" produced by the Division of Performing Arts (DPA) received a 1982 Grammy Award nomination for "Best Historical Album." Sales of "The Smithsonian Treasury of Johann Sebastian Bach," also produced by DPA, have passed the 500,000 mark, qualifying it for a Gold Record award.

-- Through the Smithsonian Office of Symposia and Seminars, the Institution coordinated and played a key role in the American observance of the 200th anniversary of the Battle of Yorktown which included a special exhibition, "By Sea and By Land: Independence with the Help of France" and a symposium on "European Contributions to the American Revolution."

-- Initial planning was completed in FY 1982 at the Chesapeake Bay Center for Environmental Studies for a graphical computer model of the Chesapeake Bay. The model, to be adapted for video use, will be a valuable educational tool illustrating the complex physical, chemical and biological interactions in estuaries with particular emphasis on the Chesapeake Bay.

-- Two major public symposia were held in FY 1982 at the National Air and Space Museum entitled "Amelia Earhart: Flight into Yesterday" and "Policy History of the U.S. Space Program."

-- The National Portrait Gallery's popular series of in-gallery performances, "Portraits in Motion," has drawn continuously increasing audiences with programs devoted to Edgar Allan Poe, H.L. Mencken, and Dorothy Parker, among others.

-- In cooperation with the Assistant Secretary for Public Service, the National Museum of American Art mounted a comprehensive series of educational programs to coincide with Black History Month, in support of the Alma Thomas exhibition. An advisory council, drawn from the Black community, helped organize a series of programs including a symposium, an eight-minute videotape, special tours for school children, and a publication distributed to area-wide schools.

-- As part of the Freer Gallery of Art's education program during FY 1982, the Gallery offered six Oriental art lectures covering a wide variety of topics related to the holdings of the museum.

-- In collaboration with the National Museum of American History and the National Zoological Park, the National Museum of African Art produced a new education program for junior high school students, "Animals and Animal Imagery." Continuing its cooperation with the National Museum of Natural History/Museum of Man and the National Zoo, the Museum expanded the "Collaboration Education Outreach Program" aimed at those audiences who are unable to visit museums--the aged and the physically and emotionally handicapped.

-- Reprints of conservation reports in the Conservation Analytical Laboratory collection has reached 7,500 with the addition of some 950 during FY 1982. These reprints are available to conservators, scientists, and the public nationwide and deal with care and treatment of a wide range of objects and materials.

Collections Acquisition:

-- Major additions to the Hirshhorn Museum and Sculpture Garden include eight portrait medallions by the French 19th century sculptor Antoine Augustin Preault, Robert Motherwell's "Elegy to the Spanish Republic #129," Leon Polk Smith's painting "Black-White Duet with Red," and Jean Baptiste Carpeaux's sculpture "Ugolino."

-- Among the most notable acquisitions by the Archives of American Art are the papers of sculptor Alexander Archipenko; the painters Milton Avery, Alexander Brook, Neil Welliver and Stanton MacDonald-Wright; and business records of the Wright State University Visiting Artist program and the Cincinnati Art Museum.

-- A significant acquisition anticipated in FY 1982 by the National Museum of African Art is of a unique carving of the Bambara people of Mali.

-- The National Museum of American Art acquired two major 19th century landscapes in FY 1982: "The Lost Balloon" by William H. Beard and "Village Scene, Upstate New York" by Jones Hart.

-- Significant acquisitions during FY 1982 by the Cooper-Hewitt Museum include English and Irish silver which expanded the Museum's holdings of ornamental and functional silver, a complete Sevre Napoleon coffee service of the early 19th century, and a valuable three-volume work on Robert and James Adam which was included in the exhibition "Robert Adam and His Style." An extensive collection of samplers also was added, making the Museum's holdings one of the finest collections of this sort in the world.

-- Among objects acquired by the National Museum of American History are two vases and a dinner place setting made by the Mount Washington Glass Works, notable for the range and quality of its glass; a five-keyed clarinet made circa 1850 by Groves and Company, an important wind instrument maker located in Winchester, New Hampshire; a life-sized mechanical man used as a traveling advertisement for cutting tools, demonstrating the widespread popularity of the automation concept in 20th century America; a rare 12-star U.S. Navy Commission pennant, 1818; and eight early U.S. notes, including a 1741 "manufactory bill" from the Land Bank of Massachusetts Bay Colony.

Facilities Management, Protection Services, and Administration:

-- The Smithsonian's Five-Year Prospectus for the period FY 1983-FY 1987 (with an additional look past 1987 for longer-range developments) was approved by the Board of Regents at its January 1982 meeting. This planning effort serves as a useful process for highlighting Institutional priorities, for sustaining action to realize objectives, and for giving a unified overview of accomplishments and plans to interested persons and organizations.

-- Work continued essentially on schedule to develop a new, integrated computer system for personnel, payroll, equal opportunity and employee cost projection purposes. This new system is expected to be put into operation early in calendar year 1983.

-- The Office of Printing and Photographic Services (OPPS) completed construction in May 1982 of an archival cold storage facility for processed film. This facility is used to store color and black and white film at 45°F and 45 percent RH to ensure extended archival life. At the same time, OPPS has been converting hazardous nitrate film onto safety based materials. During the past 12 months, approximately 25,000 conversions have been completed. Working with the Smithsonian Archivist, a new computerized cataloguing system has been developed for retrieval of photographic images. It is expected that this catalogue will provide access to Smithsonian photographic collections which has never before been possible.

-- The new performance appraisal and merit pay systems required by the Civil Service Reform Act of 1978 concluded their first year of operation smoothly, with indication that the new process will contribute to effective personnel management and improved communications between supervisors and employees.

-- Union contracts were negotiated with Local 400 of the United Food and Commercial Workers, Local 2463 of the American Federation of Government Employees, and the National Maritime Union. Food service employees in the National Air and Space Museum cafeterias were incorporated into the Smithsonian work force in September 1981, when that activity was taken over by the Institution from a concessionaire. Non-supervisory employees of the Smithsonian Tropical Research Institute in Panama, are now covered by an agreement with the National Maritime Union.

-- The first two available cooperative education students under the Affirmative Action Program were hired in full-time permanent positions. Two others were appointed to temporary summer hire positions. In addition, about 20 internship appointments and five faculty fellowships have been made this fiscal year, primarily from the students and staff of the historically Black colleges and universities.

-- An Office of Information Resources Management was established and a director appointed. The purpose of this office, which incorporates the Office of Computer Services, is to identify information needs and their relationships and to provide solutions to requirements in integrated and cost effective ways. In ongoing activity, the first steps were taken toward establishment of a Smithsonian-wide local area network for communications purposes. The network makes possible a number of advances in automation, opening the possibility of linking computers and other devices between offices and between the central computer and individual offices.

-- During the past year, the Office of Plant Services continued to expand its Computerized Preventive Maintenance Program in its effort to provide a highly reliable and efficient physical plant operation. Special attention was given to adding fire, smoke and heat detectors to the system to insure reliability of operation for these important safety systems. In addition, the Computerized Equipment Monitoring System, which analyzes the operation of various mechanical equipment in major Smithsonian museums, continued to be expanded.

-- Work continued on the phased development of a new electronic security and fire alarm system to extend to all Smithsonian buildings and to be owned and operated by the Institution. Computer communications network equipment and software packages have been bought and other software modules are being written. Closed circuit television equipment and security sensor devices are being acquired to be installed in the Museum Support Center along with the first command and control system. Installation is scheduled to begin in January 1983 and to be completed that summer.

-- The energy conservation program continues to receive close attention with the effective participation of program and support personnel. Comprehensive building energy audits are underway and the Institution has initiated a phased program through the Restoration and Renovation of Buildings account to renovate heating, ventilating, air conditioning, plumbing and electrical systems to improve their energy efficiency. Controls on lighting levels and other heavy users of energy are continuing.

<u>Resource requirements:</u>	<u>1982</u>	<u>1983</u>	<u>1984</u> <u>Request</u>
Budget Authority (\$000)	130,770	143,960/ <u>1</u>	154,498
Outlays (\$000)	129,892	142,646	153,320
Full-time equivalent employment (workyears)			
Full-time permanent	3,270	3,270	3,425
Total	3,570	3,570	3,726

	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>1988</u>
Budget Authority (\$000)	167,069	186,558	193,076	205,280
Outlays (\$000)	165,697	184,476	192,218	203,976

/1 Adjusted by \$150,000 to reflect the elimination of costs associated with the International Exchange Service which will not be continued in FY 1984.

CURRENT SERVICES DECISION PACKAGE 1
Smithsonian Institution
Salaries and Expenses: 33-0100-0-1-503

Activity description: Necessary Pay, Utilities, and Rent. A total of \$1.855 million is requested for: 1) uncontrollable pay-related items including anticipated within-grade increases scheduled during FY 1984 (\$1.328 million); the annualization of Wage Pay increases anticipated in October 1982 for Washington, D.C. based employees and at other times during the year for Smithsonian employees in other geographic areas (\$210 thousand); Merit Pay for supervisors and management officials (\$120 thousand); and 2) projected cost increases for rent (\$455 thousand). The requested increases are offset by a savings of \$258 thousand resulting from one less day of paid employment in FY 1984.

<u>Resource requirements:</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	
			<u>This</u> <u>Package</u>	<u>Cumulative</u> <u>Total</u>
Budget Authority (\$000)	130,770	143,960	1,855	145,815
Outlays (\$000)	129,892	142,646	1,855	144,501
Full-time equivalent employment (workyears)				
Full-time permanent	3,270	3,270	--	3,270
Total	3,570	3,570	--	3,570
Necessary Pay:				
-- Within-grade increases			1,328	
-- Merit Pay			120	
-- Annualization of pay raises			210	
-- One less workday			-258	
Rent			455	

Short-term objectives:

- To meet additional, uncontrollable pay-related costs.
- To cover higher space rental costs anticipated in FY 1984.

Impact on major objectives:

In view of the "uncontrollable" nature of the components of this decision package, the requested resources are essential to allow continuation of current level programs and functions. Should this request not be approved in full or in part, Smithsonian bureaus and offices would be compelled to absorb these costs through reductions to ongoing and planned programs. The Institution already plans to absorb an estimated \$220 thousand in uncontrollable unemployment compensation benefits and \$193 thousand to cover increased costs to the Smithsonian for employee health benefits.

Other information:

1. Within-grade and Merit Pay increases and annualization of FY 1983 pay increases.

These anticipated increases were calculated based on workyear ceiling levels approved for FY 1983. Further, the Merit Pay requirements were calculated using the automated data system furnished to agencies by the Office of Personnel Management. The amount requested for Merit Pay replaces the amount for within-grade and quality step increases that would have been paid under the conventional step system. Funding for the Merit Pay portion of the annual comparability adjustment will be included in the Smithsonian's FY 1984 pay supplemental request.

2. One Less Workday.

The annual rates of pay, as well as resources currently available for compensation to employees, are based on employees being paid for a 261-day workyear in FY 1983. FY 1984 will contain 260 workdays. Therefore, funding of \$258 thousand for employees' salaries and benefits is being relinquished in FY 1984.

3. Rent, Communications, and Utilities.

The rent, communications, and utilities accounts include the following components: electricity, steam, gas, fuel oil, water, telephones and postage. The Federal share of rental space costs of the administrative activities located at L'Enfant Plaza, the Smithsonian Institution Service Center and the Smithsonian Oceanographic Sorting Center also is included in this account.

With an FY 1983 estimated base of \$14.567 million available to meet utilities and communications costs in FY 1984, no additional funding is requested. The following table depicts actual and anticipated use and cost of the major components of the utilities account between FY 1981 and FY 1984 and indicates the projected base shortage/surplus in each component between the estimated FY 1983 appropriation and the estimated costs for FY 1984.

ANALYSIS OF UTILITIES COSTS

FY 1981 - FY 1984

Fiscal Year	ELECTRICITY			STEAM			GAS		
	Use	Unit Cost	Cost	Use	Unit Cost	Cost	Use	Unit Cost	Cost
	Millions of KW	Average Per KW	\$000s	Millions of lbs.	Average Per 1,000 lbs.	\$000s	Millions Cu. Ft.	Average Per Cu. Ft.	\$000s
1981 Actual	81.9	.0570	4,665	237.8	13.52	3,214	.884	.4514	399
1982 Est. Actual	83.4	.0588	4,900	227.8	14.25	3,246	.948	.5897	559
1983 Est.	84.0	.0619	5,200	235.0	15.00	3,525	1.025	.7024	720
1984 Est.	84.0	.0679	5,700	235.0	16.17	3,800	1.025	.8585	880
1984 Est.			5,700			3,800			880
1983 Base			6,111			4,200			625
	Base Surplus, Electricity		411	Base Surplus, Steam		400	Base Shortage, Gas		255

The above table shows projected surpluses in electricity (\$411 thousand) and steam (\$400 thousand). These are partially offset by a base shortage in gas (\$255 thousand). The electricity and steam surpluses are attributable to the declining price of world oil which has slowed rate increases, and to energy conservation efforts at the Smithsonian (these are addressed later in this narrative) which have contributed to the Institution's ability to maintain relatively constant levels of consumption even though estimates include new facilities at the National Zoological Park (the Monkey Island Exhibit, the Small Animal Facility and renovation of the Large Hoofed Stock Facility). For gas, consumption for FY 1984 also is estimated to remain relatively constant, although rate increases brought about by the decontrol of natural gas prices have created a base shortage. The remaining estimated savings from electricity and steam will be applied against projected deficits in communications costs for telephone (\$141 thousand) and postage (\$315 thousand) and fuel oil and water costs (\$100 thousand).

The following table depicts actual and anticipated costs for these utilities between FY 1981 and FY 1984 and shows the projected base shortage between the estimated FY 1983 appropriation and the estimated costs for FY 1984.

(\$000's)

FUEL OIL/WATER, TELEPHONE AND POSTAGE COSTS FY 1981 - FY 1984

<u>Item</u>	<u>FY 1981 Actual</u>	<u>FY 1982 Est. Actual</u>	<u>FY 1983 Est.</u>	<u>FY 1984 Est.</u>	<u>FY 1983 Base</u>	<u>Base Shortage</u>
Telephone	\$1,501.1	\$1,775.0	\$2,000.0	\$2,387.0	\$2,246.0	\$141.0
Postage	974.5	1,100.0	1,200.0	1,400.0	1,085.0	315.0
Fuel Oil/Water	<u>180.0</u>	<u>250.0</u>	<u>320.0</u>	<u>400.0</u>	<u>300.0</u>	<u>100.0</u>
TOTALS	\$2,665.6	\$3,125.0	\$3,520.0	\$4,187.0	\$3,631.0	\$556.0

The table shows the steady annual rise in costs resulting from actual and anticipated rate increases. For example, although equipment growth between 1977 and 1982 has been held to 26 percent, local telephone service costs have risen by 42 percent due to rate increases granted in May 1981 (21 percent) and May 1982 (30 percent) to the C&P Telephone Company by the Public Service Commission. Additionally, in June 1981, the General Services Administration in June 1981 advised the Smithsonian of the Federal Communications Commission's approval of a series of rate increases which are estimated to increase costs by 52.9 percent for operation of the Federal Telecommunication Network Service. For postage, higher costs are attributable to rate increases granted in March 1981 by the United States Postal Rate Commission for all classes of mail. Higher costs for fuel oil/water are attributable to annual rate increases passed on to consumers by local suppliers.

Rental Space:

This item consists of the proportionate Federal space rental costs of the administrative activities located at L'Enfant Plaza, the Smithsonian Institution Service Center at 1111 North Capitol Street and the Smithsonian Oceanographic Sorting Center at the Washington Navy Yard. The terms of the current leases at L'Enfant Plaza and at the Service Center require the Smithsonian to assume additional costs for operating expenses brought about by increases in maintenance and utility costs. Space rental costs at the Service Center also are expected to increase in FY 1984 consistent with extension of the present lease which expires in June 1984. An amount of \$400 thousand is required to cover higher space rental costs at these locations which are estimated to total approximately \$1.765 million in FY 1984.

It is anticipated that the Smithsonian's Oceanographic Sorting Center will move to the Museum Support Center at Suitland, Maryland, about mid-FY 1983. As reported previously to OMB and the Congress in the Smithsonian's FY 1983 budget request, space rental savings realized will be applied to the cost of equipping this new collection management facility.

An amount of \$55 thousand is requested to cover the rental of library space at the Smithsonian Astrophysical Observatory (SAO) in Cambridge, Massachusetts. These rental costs, covered in previous years with SAO's base salaries and expenses funds, have placed a significant drain on annual operating resources available to the Astrophysical Observatory. Further, as the library is a component of the central library system it is appropriate that these expenses be borne by the Smithsonian's central space rental account.

Energy Conservation Efforts:

In order to manage use of energy in the most efficient manner possible consistent with proper environmental conditions for the collections, the Institution is continuing its efforts in a comprehensive energy management program which concentrates on promoting systems efficiency and conservation. Efforts to promote conservation include operation of a complex computerized power management system which has resulted in substantial energy cost avoidance. This system minimizes costly peak demand rates by cycling motors on and off on a prescheduled basis, and when necessary, selectively shutting down equipment. Monitoring systems have greatly assisted the Institution's conservation efforts by assuring that all building operating equipment functions efficiently.

Progress made in promoting energy conservation in FY 1982 and FY 1983 and planned for subsequent years includes continuation of the phased program of performing comprehensive building energy audits and renovating heating, ventilating and air conditioning, plumbing and electrical systems in the Institution's facilities. (Plans and progress in developing energy efficient utilities systems are addressed in the Construction portion of the budget.) Improvements in these systems will produce the most significant energy savings to the Institution while providing stable temperature and humidity conditions necessary for the preservation of the collections.

Other continuing efforts to achieve more economical and efficient energy use include reducing lighting levels in work and non-public spaces and, whenever possible, in public areas; installing more efficient lighting fixtures with new switching patterns and controls; operation of heating and air conditioning systems at minimum levels required to prevent damage to collections; shut-down of fans and other heavy consumers of electricity during non-public hours; continuation of an awards program for employees who submit original suggestions that are implemented to conserve energy; and greater attention to energy conservation in determining space use, in modifying existing space, and in designing new facilities.

Although weather, numbers of visitors and new facilities all affect energy consumption, a measure of the success of the Institution's energy conservation efforts can be seen in the fact that consumption of electricity, steam and gas are expected to remain relatively constant between fiscal years 1981 - 1984 (not including the Museum Support Center). Between FY 1978 and FY 1982 the Institution has avoided an estimated \$2.5 million in utilities costs from the energy conservation measures outlined above. These conservation measures have had a direct relationship to the fact that the Smithsonian does not require additional funding for utilities costs in FY 1984.

CURRENT SERVICES DECISION PACKAGE 2
Smithsonian Institution
 Salaries and Expenses: 33-0100-0-1-503

Activity description: Inflation. Resources totaling \$2.0 million are requested to help offset the cumulative and anticipated costs to the Smithsonian as a result of inflation. The amount requested is calculated on the basis of seven percent of the total nonsalary object classes of expenses estimated for FY 1983, excluding utilities, rent and Museum Support Center equipment. Inflationary increases represent significant costs that have the cumulative effect of seriously eroding research, exhibitions, collections management, collections acquisition, and education and public orientation programs, as well as facilities management and administrative services. The result of inflation, therefore, is equivalent to a significant cut each year to the base resources of all the Smithsonian's approximately sixty organizational units.

			1984	
<u>Resource requirements:</u>	<u>1982</u>	<u>1983</u>	<u>This Package</u>	<u>Cumulative Total</u>
Budget Authority (\$000)	130,770	143,960	2,014	147,829
Outlays (\$000)	129,892	142,646	2,014	146,515
Full-time equivalent employment (workyears)				
Full-time permanent	3,270	3,270	--	3,270
Total	3,570	3,570	--	3,570

Short-term objective:

-- To help offset the effects of inflation in the other objects of expenses portion of the Salaries and Expenses appropriation.

Impact on major objectives:

-- In view of the effects of inflation, the resources requested in this package are essential to fund all Smithsonian activities at the current services level. A significant reduction in the quality of Smithsonian programs would result if this request is not approved.

Other information:

Cost increases continue to have a severe effect on the Smithsonian's ability to carry out its program functions as they were intended. One such functional area is scientific research. Scientific supplies and contracts for instrument repair and maintenance are becoming increasingly more costly, far outstripping prices in more common goods and services. The following table lists some items that are purchased regularly and illustrates such increases.

Research and Scientific Supplies and Contracts

<u>Item</u>	<u>FY 1981</u>	<u>FY 1982</u>	<u>Percentage Increase</u>
Electron microscope maintenance/year	\$5,064.00	\$5,742.00	13 percent
Deionized water service	2,178.00	2,520.00	16 percent
Petri dishes, per case	61.40	82.90	35 percent
Dry ice, 100 lbs.	9.00	10.50	17 percent
Liquid X-ray developer, gallon	8.43	10.66	26 percent
Kodak film, 50 sheets for scanning electron microscope	15.60	18.15	16 percent
Saw blades, diamond, each	90.75	115.00	27 percent
Digital 125 Ph/ion meter	850.00	925.00	9 percent

Inflationary cost increases of research-related items used in the sciences, history and art also are evident including those for supplies, books, journals and publishing. Chemicals used in analyzing water samples such as hydrochloric acid, sulfuric acid, mercuric iodide and hydrogen peroxide have increased in cost on an average of 59 percent in 1982 over 1979 prices. The cost of millipore filters, used to separate sediment in water in laboratory analysis, increased 39 percent compared to the 1979 cost.

The history, art, and scientific scholarly book and journal trade has been especially prone to a rapid rate of inflation. The rate for journals is currently 15 percent. The growth of the books and journals budget has not kept pace with the rise in prices as they are affected by inflation. Consequently, journals which report the most timely data are purchased first and the limited remaining resources are used to purchase books for the collections. The Smithsonian Institution Libraries (SIL) will expend \$480 thousand in FY 1982 for books and journals. Because of severe budget restraints there is

a heavy reliance on obtaining books and journals from other libraries. The SIL borrows six times as much as it lends to other libraries. Also, duplicates and lesser used serials are discontinued in an effort to cut annual acquisition costs. The cost of binding serials and damaged books has increased an average of seven percent in FY 1982. The SIL will spend \$67 thousand in FY 1982 on binding contracts.

Publication costs essential to scientific research, as well as to exhibition and educational programs have been rising steadily also. The Smithsonian has been advised by the Government Printing Office that printing costs will increase nine percent in FY 1983. The estimated cost for FY 1982 for printing the series publications in the National Museum of Natural History/Museum of Man will be \$322 thousand, compared with \$312 thousand in FY 1981. These publications are disseminated to schools, libraries and other museums.

The increases in costs of materials and supplies caused by inflation places a severe strain on the base resources needed to maintain our active exhibits program. The materials used to mount exhibitions are becoming increasingly costly. The following table illustrates this.

Exhibition Materials

<u>Item</u>	<u>FY 1981</u>	<u>FY 1982</u>	<u>Percentage Increase</u>
Diffusers 24" x 24"	\$ 30.00	\$ 35.00	17 percent
Plexiglas - 4'x 8' - 1/4", (UV3)	99.84	120.00	20 percent
Plexiglas - 4'x 8' - 1/4", clear	62.40	72.00	15 percent
Fir plywood - 4'x 8' - 3/4"	22.35	28.25	26 percent
Conduit, 3/4"	49.61	57.76	16 percent
300 W bulbs - case	191.76	232.20	21 percent
Shellac - gallon	13.08	14.67	12 percent

Measures are taken to lessen the effects of inflation on exhibit preparation costs. For example, the construction of flexible cases reduces the cost and time required to build a customized case for each exhibit. Whenever possible the work to repair and construct an exhibit area is done by Smithsonian staff rather than by outside contractors. Because of the fluctuation of prices in the petrochemical market, vendors are anticipating cost increases between 12 and 18 percent per year for plexiglas and plastic products for FY 1983 and FY 1984.

The transportation and shipping associated with Smithsonian programs such as the Traveling Exhibition Service, loan programs of the museums and galleries, and the archival efforts of the Archives of American Art is another area of rapidly escalating cost. Because the collections possess intrinsic as well as scholarly value, special handling, which increases transporting fees, is a requirement. The size of the collection alone may cause numerous shipping problems and additional costs. The Institution anticipates spending \$600 thousand on shipping in FY 1982. To help overcome these escalating costs and to remain within OMB's spending limitations, less desirable means of transporting objects are employed. Staff and vehicles are used in lieu of shipping firms. Some collections are wrapped and sent by mail. Consequently, valuable staff time which otherwise would be devoted to research, exhibition and acquisitions programs is diverted because of the need to utilize these alternative measures.

The collections management programs, which are basic to the preservation of invaluable objects, have been affected by the steady price increases of such items as storage cases, insect trays and shelving. Medical supplies for the animal collection at the National Zoo have risen dramatically. The cost of stainless steel storage tanks that house items in alcohol such as small mammals, reptiles and fishes has increased from \$308 per unit in FY 1981 to \$356 per unit in FY 1982, an increase of 16 percent. The storage shelves to support these tanks have increased 25 percent in cost. As new specimens become part of the National Collection and when they are returned from being on loan they are fumigated to protect them from insect damage. Stored botanical specimens are sprayed every few years; bird and mammal storage cases are routinely fumigated twice a year. The price of fumigation gas used to perform this function has increased 11 percent over FY 1981 prices. Similar dramatic price increases are observed in the purchase of other materials used for archival purposes. The following table lists several of these items.

Collections Management Equipment

Glass beakers		
four -	1981: \$28.20	
	1982: \$31.59	12 percent
Toulene, cleaning solvent		
gal -	1981: \$14.15	
	1982: \$17.17	21 percent
Lightcast tape 3", lightweight flexible cast for animals		
box of -	1981: \$52.65	
ten rolls	1982: \$62.05	18 percent
Disposable scalpel #10 blade		
per box -	1981: \$7.12	
	1982: \$8.35	17 percent
Insect pins		
per 1,000 -	1981: \$18.50	
	1982: \$21.00	14 percent

The National Zoological Park continues to feel the effect of inflationary increases in the cost of feeding the animal collection. Some measures are being taken to circumvent these inflationary pressures. Among them is the growth of hay and alfalfa at the Front Royal Conservation and Research Center to supplement food and bedding purchases. In FY 1982, approximately \$340 thousand will be expended for food for the collection of 2,000 animals. This represents an annual increase of 17 percent. The cost of penicillin for the animals has increased 26 percent over FY 1981 prices. The Zoo has experienced a 50 percent increase in cost in FY 1982 of identical food items purchased in FY 1981. It is vital that resources for medical supplies be available for a program whose mission is to improve the health and longevity of its collection.

Significantly higher costs of uniform cleaning services result in reduced availability of monies for protection items. The cost for these necessary services for the Office of Protection Services is projected to increase from \$60 thousand in FY 1981 to \$69 thousand in FY 1982, an increase of 15 percent. The maintenance of the communications system which includes a radio system transmitter and satellite receivers has increased 33 percent. The service contract to test and refill the fire extinguishers annually within the Smithsonian buildings has risen ten percent in cost. The costs associated with maintaining, testing and inspecting the security systems have increased also. It is estimated that \$350 thousand will be expended in FY 1983 for security system maintenance and repair, an increase of approximately 13 percent over the cost of similar services provided in FY 1982.

The Institution's facilities management and administrative functions also continue to witness inflationary effect. For example, trash collection services have increased 20 percent over the FY 1981 cost. Computer maintenance services for the Office of Information Resources Management (formerly Office of Computer Services) are projected to cost the Institution \$204 thousand in FY 1982. This is an increase of between nine and 15 percent over FY 1981. The cost of computer programming training courses will increase from 12 to 18 percent.

The request of a seven percent increase to nonsalary funds is a modest one. Yet, the additional resources of \$2 million proposed in this decision package are vital to the integrity of virtually all programs of the Institution. If approved, these resources will assist in maintaining the Smithsonian's programs at a level approximating current effectiveness.

CURRENT SERVICES DECISION PACKAGE 3
Smithsonian Institution
Salaries and Expenses: 33-0100-0-1-503

Activity description: Museum Support Center-related costs. Additional resources of \$1.355 million and 107 full-time permanent positions and workyears and one "other" workyear are included in this package. These resources, along with base resources of eight positions and workyears and \$6.7 million, will be used 1) to continue for the fourth year the phased purchase program of laboratory and collections storage equipment; 2) to meet building operating expenses including personnel, supplies and equipment for the janitorial, maintenance and security functions; 3) to meet program development costs for the National Museum of Natural History/Museum of Man, the National Museum of American History and the Conservation Analytical Laboratory; 4) to fund utilities expenses; and 5) to defray nonrecurring costs for relocating the collections.

<u>Resource requirements:</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	
			<u>This Package</u>	<u>Cumulative Total</u>
Budget Authority (\$000)	130,770	143,960	1,355	149,184
Outlays (\$000)	129,892	142,646	1,355	147,870
Full-time equivalent employment (workyears)				
Full-time permanent	3,270	3,270	107	3,377
Total	3,570	3,570	108	3,678

Short-term objectives:

-- To continue the phased program of purchasing essential storage and laboratory and support equipment in coordination with the planned occupancy of the Museum Support Center building.

-- To continue the phased staff expansion for the program functions within the Center including the Conservation Analytical Laboratory (begun in FY 1981), the National Museum of Natural History/Museum of Man and the National Museum of American History.

-- To meet the staffing requirements related to facilities operations and support, including those of the Office of Protection Services, Office of Plant Services, Museum Support Center Building Management Office, Office of Horticulture and Office of Printing and Photographic Services.

Impact on major objective:

Resources in this package will ensure program and operational support for the Museum Support Center.

Other information:

Groundbreaking for the Museum Support Center occurred in January 1981 and construction is now over 90 percent complete; the construction schedule indicates that the building will be completed in January 1983. However, the contractor is currently ahead of schedule and barring unforeseen circumstances beneficial occupancy may occur as early as November 1982.

The following chart summarizes the overall Museum Support Center-related costs between FY 1982-FY 1988. These costs are discussed individually in the following sections of this decision package.

Museum Support Center - Related Costs

	FY 1982 Approp. (Pos.) \$	FY 1983 Request (Pos.) \$	Proposed Change 1983-1984 (Pos.) \$	FY 1984 Estimate (Pos.) \$	FY 1985 Estimate (Pos.) \$	FY 1986 Estimate (Pos.) \$	FY 1987 Estimate (Pos.) \$	FY 1988 Estimate (Pos.) \$
Operating and Program Personnel and Support	(8) 187	(8) 587	(107) +2,430	(115) 3,017	(140) 3,772	(143) 3,907	(144) 3,952	(145) 3,997
Moving Expenses	- -	- 1,100	- -350	- 750	- 750	- -	- -	- -
Utilities	- -	- 800	- -	- 800	- 880	- 970	- 1,070	- 1,180
Equipment:								
Collections Storage	- 3,225	- 3,157	- -1,172	- 1,985	- 1,200	- 1,300	- 1,300	- 1,300
Other	- 1,090 /1	- 1,063 /1	- +447	- 1,510	- -	- -	- -	- -
TOTAL	(8) 4,502 /1	(8) 6,707 /1	(107) 1,355	(115) 8,062	(140) 6,602	(143) 6,177	(144) 6,322	(145) 6,477

/1 An additional \$750 thousand of Trust funds has been made available for Conservation Analytical Laboratory equipment to be expended in FY 1982 (\$500 thousand) and FY 1983 (\$250 thousand).

-- Operating and Program Personnel and Support Requirements: The following chart summarizes the Support Center's operating and program requirements as detailed in sections A and B below. The request for FY 1984 represents the minimum resources necessary to operate this unique building. Resources below this level would not allow us to properly maintain or operate the building and its equipment, protect adequately the staff, collections and building, and develop the programs the building was intended to serve.

	<u>FY 1982</u> <u>Approp.</u>	<u>FY 1983</u> <u>Request</u>	<u>FY 1984</u> <u>Estimate</u>	<u>FY 1985</u> <u>Estimate</u>	<u>FY 1986</u> <u>Estimate</u>	<u>FY 1987</u> <u>Estimate</u>	<u>FY 1988</u> <u>Estimate</u>
Positions	8	8	115	140	143	144	145
(\$000)	\$ 187	\$ 587	\$ 3,017	\$ 3,772	\$ 3,907	\$ 3,952	\$ 3,997

A. Operating Requirements:

A total of 90 new full-time permanent positions and workyears and one "other" workyear and an additional \$1.785 million is required in FY 1984 to provide essential full-year operating functions for the Museum Support Center such as security and protection for the staff and the collections; maintenance and operation of utility systems; maintenance and janitorial support; shipping and receiving functions; roads, perimeter and grounds maintenance; administrative operations; and photographic services.

Office of Protection Services - (33 positions and workyears and \$571,000) - The Office of Protection Services (OPS) will have the responsibility of providing internal and external security for the Museum Support Center twenty-four hours a day and providing health services to both the Silver Hill facility and the Museum Support Center. Thirty-one guards on three shifts staffing fourteen posts will be assigned to the interior of the building including the control room which will monitor activity and will control access through the use of closed circuit television, motion and audio detectors, electric locks, card reading devices and intercoms. K-9 teams will provide perimeter and exterior area security for the 26 acre site.

One alarms maintenance mechanic will be required to maintain all the security devices, sensors and electrical locks which are integral parts of the proprietary security and fire alarm system, a prototype security system which will be expanded during the next ten years to all Smithsonian museums in the Washington, D.C. Metropolitan area. Also requested is one position for a nurse to establish a health unit to serve both the Silver Hill facility and the Museum Support Center.

Office of Plant Services - (25 positions and workyears and \$640,000) - The Office of Plant Services (OPlantS) will operate and maintain the utilities systems and provide necessary building maintenance and transportation. Twelve maintenance mechanics are required to operate high pressure steam generators and other components of the heating, ventilating and air conditioning (HVAC) systems 24 hours a day, 7 days a week. These systems must maintain stable temperature and relative humidity conditions at levels necessary for the preservation of the collections stored at the Center. The systems must be monitored to insure that the equipment is operating within acceptable levels of efficiency, energy consumption and safety.

Eight preventive maintenance mechanics will perform scheduled maintenance tasks for the complex HVAC systems and the fire and smoke detection systems which constitute 53 percent of the total Museum Support Center construction costs. An adequate preventive maintenance program, carried out in accordance with manufacturers' recommendations, will limit costly emergency repairs and protect the collections that are sensitive to changes in temperature and humidity conditions. Moreover, it is necessary to conduct basic preventive maintenance in order to receive the benefit of manufacturers' warranties.

Four trade and craft mechanic positions (an electrician, a painter, a plumber, and a carpenter) are required as a cadre of OPlantS personnel to install laboratory equipment and fixtures including sinks, branch plumbing, electrical outlets, exhaust hoods and ductwork, countertops and compressed air systems which will be purchased or installed separately from the construction contract. These four positions also will be utilized to repair damage that inevitably occurs in the course of relocation. As the Museum Support Center building ages, these positions will be used for normal repair and maintenance work.

Mail and transportation services will require one additional position and a van. Since there will be permanent offices at the Museum Support Center, the pick-up, delivery and distribution of mail will be an essential service to the proper functioning of the facility. Two daily round trips will be necessary between the Center and Mall buildings. This will be accomplished in conjunction with transporting curators and scientists, whose offices will remain on the Mall but who must have ready access to their collections at the Museum Support Center. In the routine conduct of daily business it also will be necessary for other operating and administrative staff to be able to travel to and from the Center without long delays or the unnecessary expenditure of fuel that would be required by individual trips.

Office of Horticulture - (Two positions and workyears and one "other" workyear and \$63,000) - The Office of Horticulture will be responsible for grounds maintenance of the 26 acres at the Museum Support Center site. Grounds maintenance includes upkeep of the perimeter fence line for security purposes, care and mowing of grass, snow removal, leaf collection and disposal, trash removal, insect and pest control, and the planting and maintenance of minimal landscaping. Two full-time gardeners would be augmented by seasonal help when workloads exceed their capabilities.

Building Manager, Museum Support Center - (29 positions and workyears and \$475,000) - The Office of the Building Manager will be responsible for providing shipping and receiving functions, administrative support, cleaning and maintenance of the physical plant. Three positions (a building manager, a secretary and an administrative clerk) will provide the necessary direction, administrative services and facilities management.

Two positions will be required to fulfill the important shipping and receiving function at the Center. While the receiving activities will receive the heaviest emphasis in the course of the relocation of the collections, under normal operations substantial movement both in and out of the Center will be typical. Objects and specimens will be leaving the Center for exhibition or study while items will be sent to the Center for storage, curation or treatment. A technician and clerk will be responsible for receiving, controlling and routing incoming material; for maintaining appropriate records; and for appropriately insuring and posting packages and crates leaving the Center.

A total of 13 janitorial positions and 11 general laborer positions will perform the cleaning and maintenance of the building including servicing of light fixtures, movement of equipment and collections within the building and generally making a significant contribution toward keeping the collections in an environment which is clean, orderly and sanitary.

Office of Printing and Photographic Services - (one position and workyear and \$36,000) - This request will allow a photographer to document the collections stored at the Museum Support Center and record the steps taken in conservation treatment by the Conservation Analytical Laboratory. These functions are necessary both for inventory control as well as professional conservation documentation and instructional purposes for the conservation training program.

B. Program Requirements:

A total of 17 new full-time permanent positions and workyears and an additional \$645 thousand is required for functions of a program nature to be carried out at the Museum Support Center. These functions include basic program direction for the Center, development and maintenance of data management and registrarial services, emergency conservation to the collections prior to relocation, and the continued development of both conservation services and the conservation training program.

Program Administration - (Six positions and workyears and \$147,000) - These positions will begin the phased build-up of program development, administrative and conservation staff to care for the vast number of items in the collections to be moved from the National Museum of Natural History/Museum of Man and the National Museum of American History. These additional resources include a director, a secretary, a registrarial assistant, two conservators, and a clerk/typist. The director will be charged with responsibility for overall program development, implementation and operation at the Museum Support Center. The director, with support from the shipping and ADP offices and the

registrarial assistant, also will coordinate and oversee the implementation of inventory control and information management procedures of all items which come to the Museum Support Center during the move from the National Museum of Natural History/Museum of Man and the National Museum of American History. The registrarial assistant will be responsible for documenting accessions, loans, etc. and, in coordination with the shipping officer, for recording movement of collections. The MSC conservator will act as an advisor on the preparation and treatment of collections before they are moved to the Support Center. Many of the objects cannot be moved in their present condition without severe or irreparable damage. At the MSC, the conservator will prepare condition reports on collections entering the Center and will inspect these collections for insect infestation. A second conservator is requested to treat National Museum of American History's fragile objects prior to their movement to the Museum Support Center.

Conservation Analytical Laboratory - (Eleven positions and workyears and \$498,000) - Six positions and \$301 thousand are needed for the collections management function and five positions and \$197 thousand are required to continue the phased development, with the cooperation of area universities, of a comprehensive conservation training program. Currently, the Conservation Analytical Laboratory (CAL) has a base of seven positions and \$163 thousand for their operations at the Center. Three positions have been devoted to establishing the conservation training program and four have been provided for base staffing for the collections management and conservation function.

For collections management in FY 1984, two conservators, a microanalyst, an intermuseum conservation coordinator, a clerk-typist, and a fumigation technician are needed to reduce the backlog of items requiring conservation treatment at all Smithsonian museums and to continue the sharing of conservation data with other museums and research organizations in the United States and abroad. Included in this request are funds to purchase supplies and maintain the Museum Support Center's fumigation chamber. Each item will be inspected upon entering the Center and, if required, will be fumigated to eliminate the possibility of insect, rodent or bacterial contamination. Several different fumigants will be required based on method of fumigation, material to be treated, organisms to be eliminated, and external environmental conditions at the time of fumigation.

For the conservation training program, five positions and workyears are requested. Each student will require guidance, supervision and advice while working in "hands-on" situations with actual items from the collection requiring conservation. Two conservators will acquaint interns with availability and use of specialized equipment, methods and alternatives in dealing with specific problems and serve as intermediaries between the interns and museum curators who have ultimate responsibility for the collections being treated. An information officer and a clerk/typist will work with reports which are drafted by a conservator on every item treated. These reports are detailed and precise descriptions of the items treated, the need for conservation, and the individual steps in the treatment process. A syllabus coordinator will provide liaison among the Institution, area universities, and trainees to assure that the total curriculum meets the current standards for conservators and that the academic requirements of the universities are being met.

-- Moving Expenses:

	<u>FY 1981</u> <u>Actual</u>	<u>FY 1982</u> <u>Approp.</u>	<u>FY 1983</u> <u>Request</u>	<u>FY 1984</u> <u>Estimate</u>	<u>FY 1985</u> <u>Estimate</u>	<u>FY 1986</u> <u>Estimate</u>	<u>FY 1987</u> <u>Estimate</u>	<u>FY 1988</u> <u>Estimate</u>
(\$000)	--	--	\$1,100	\$ 750	\$ 750	--	--	--

An amount of \$.75 million is sought for expenses associated with the move from the National Museum of Natural History/Museum of Man and the National Museum of American History which will take from five to seven years. The magnitude of this transfer of collections appears to be unprecedented in the museum community both in terms of numbers of items to be moved, the distance to be moved and the variety of materials and the differing conditions of the objects. The National Museum of Natural History/Museum of Man alone may send as many as ten million objects and specimens to the Center over the next several years. The Institution currently is soliciting advice from moving specialists and museological sources regarding the most effective and safest method to move the collections. There appears to be no acceptable single way to move all kinds of materials; rather, specific methods of transfer must be keyed to the type of collections involved. The first collection scheduled to be relocated to the Museum Support Center will be specimens preserved in liquid from the Smithsonian Oceanographic Sorting Center which currently occupies leased space in the Navy Yard. The funds requested will be used to purchase reusable shipping containers, packing materials and contract moving services where appropriate. Depending on results of the study now being conducted it may be cost beneficial to acquire moving vans or trailers as means of assuring direct Smithsonian control over movement of the most sensitive collections. This request for FY 1984 represents a decrease of \$350,000 to the funds available in the FY 1983 base for this purpose.

-- Utilities:

	<u>FY 1981</u> <u>Actual</u>	<u>FY 1982</u> <u>Approp.</u>	<u>FY 1983</u> <u>Request</u>	<u>FY 1984</u> <u>Estimate</u>	<u>FY 1985</u> <u>Estimate</u>	<u>FY 1986</u> <u>Estimate</u>	<u>FY 1987</u> <u>Estimate</u>	<u>FY 1988</u> <u>Estimate</u>
(\$000)	--	--	\$ 800	\$ 800	\$ 880	\$ 970	\$1,070	\$1,180

A total of \$800 thousand is required to fund the costs of electricity for lighting, ventilating and air conditioning (\$410 thousand) and to fund fuel oil or gas for heating (\$390 thousand) the Museum Support Center. The Center will be equipped with dual-fired boilers which generate steam to

heat the building and that can use either fuel oil or gas depending on the availability and cost of each. Electricity will be used for ventilating and air conditioning the building in addition to providing power for lights, chillers, pumps and scientific and office equipment. In the estimates for both electricity and fuel oil or gas, the number of heating or cooling degree days in the Washington, D.C. area was factored with the capacity of the equipment in use and multiplied by the projected cost of the utility for FY 1984. As with other Smithsonian buildings, a computerized power management system which minimizes costly peak demand rates will be installed in the Museum Support Center. This request represents no increase over the FY 1983 base for utilities costs at the Museum Support Center.

-- Equipment:

(\$000)	FY 1981 <u>Actual</u>	FY 1982 <u>Approp.</u>	FY 1983 <u>Request</u>	FY 1984 <u>Estimate</u>	FY 1985 <u>Estimate</u>	FY 1986 <u>Estimate</u>	FY 1987 <u>Estimate</u>	FY 1988 <u>Estimate</u>
Collections								
Storage	\$ 2,051	\$ 3,225	\$ 3,157	\$ 1,985	\$ 1,200	\$ 1,300	\$ 1,300	\$ 1,300
Other Equip- ment and Furnishings	653	1,090 /1	1,063 /1	1,510	--	--	--	--
Total	\$ 2,704	\$ 4,315 /1	\$ 4,220 /1	\$ 3,495	\$ 1,200	\$ 1,300	\$ 1,300	\$ 1,300

/1 An additional \$750 thousand of Trust funds has been made available for Conservation Analytical Laboratory equipment to be expended in FY 1982 (\$500 thousand) and FY 1983 (\$250 thousand).

An amount of \$3.495 million is requested for collections storage equipment (\$1.985 million), and for work area and laboratory furnishings and horticultural and library equipment (\$1.510 million). This represents a net reduction of \$725 thousand below FY 1983 level and continues the planned acquisition of storage and other equipment necessary for the proper functioning of the Museum Support Center.

A. Storage Equipment - With funds appropriated in FY 1981, the Institution is acquiring wet storage equipment which is essentially open shelf storage for bottles containing alcohol-preserved specimens from the Smithsonian Oceanographic Sorting Center and portions of the Departments of Vertebrate and Invertebrate Zoology of the National Museum of Natural History/Museum of Man. Bids were opened on July 9, 1982 for Phase I (wet storage) of the Collections Storage System. The low bid was within fund availability. Wet storage will occupy one of the four storage pods of the Museum Support Center. In FY 1982 and FY 1983 funds of \$6.4 million will continue the phased acquisition of the three tiered self-supporting storage racking system. Each rack will hold storage compartments

with various sized drawers or shelves or other components as is appropriate for the collections being stored. In FY 1984 and beyond, additional dry storage racks of the same type will be acquired for the National Museum of Natural History/Museum of Man's collections in anthropology, botany, mineral sciences, paleobiology, the remaining collections in vertebrate and invertebrate zoology, and smaller collections of the National Museum of American History. An amount of \$1.985 million is sought for this purpose in FY 1984.

B. Other Equipment - Acquisition of equipment for research and conservation laboratories, work area furnishings, security, horticulture, library and photographic equipment was begun in FY 1981. For FY 1984, which will be the last year for procuring this type of equipment, \$1.510 million is requested to purchase laboratory fixtures and equipment for curatorial, research and conservation programs to be conducted by the bureaus occupying the MSC. This equipment will include laboratory bench equipment such as microscopes, a spectrophotometer, a microtome, photographic and darkroom equipment, lab stools and utility equipment such as safety ladders and tools.

CURRENT SERVICES DECISION PACKAGE 4
Smithsonian Institution
 Salaries and Expenses: 33-0100-0-1-503

Activity description: Security. Resources of 48 full-time permanent positions and workyears and \$1.2 million are requested to continue the phased program to strengthen security for the Smithsonian facilities. (An additional amount of \$1 million is sought, also to strengthen security, in decision package 11.)

<u>Resource requirements:</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	
			<u>This Package</u>	<u>Cumulative Total</u>
Budget Authority (\$000)	130,770	143,960	(136)*	149,048
Outlays (\$000)	129,892	142,646	—	147,870
Full-time equivalent employment (workyears)				
Full-time permanent	3,270	3,270	48	3,425
Total	3,570	3,570	48	3,726

* An amount of \$1.336 million is included in the FY 1983 budget for one-time purchases of security equipment. Resources in this package seek to retain \$1.2 million for security-related purposes in FY 1984.

Short-term objectives:

-- To alleviate a shortage of guards in public galleries.

-- To upgrade the security devices and systems in most Smithsonian facilities to reduce the threat of theft and vandalism.

-- To provide a safe, secure environment for visitors, staff and the collections.

Other information:

The Smithsonian has conducted comprehensive studies of security conditions at all museums and facilities of the Institution resulting in identification of areas where security coverage is not adequate and opportunities exist for theft, break-in or vandalism. In order to correct these deficiencies, an amount of \$5.3 million will be required for additional security personnel and for new, upgraded security equipment. The Institution initiated its request for these resources in FY 1983

with a proposed \$1.7 million for security equipment and plans to request the balance of these resources over several years, devoting attention first to those areas that present the most serious gaps in the security of the visitors, staff and collections. The estimate of total requirements will be examined annually as problems are corrected and projections are revised to reflect work yet to be done and the then-current costs.

For FY 1984, an amount of \$1.48 million is requested for one-time costs associated with security equipment in 19 Smithsonian bureaus. Of the amount sought, \$1 million is included in decision package 11; \$480 thousand is requested in this package.

For many years, the Institution has met security requirements on the basis of reacting to the most critical need of the moment. As a result, the security of the National Collections has been uneven and in some instances inadequate for meeting changing conditions. Several museums have systems which are obsolete or function only intermittently with frequent attention required. Others have large areas of non-public space which are not monitored and where access is not controlled, or have only lock and key arrangements which provide a minimum of security but which would not deter a determined unauthorized entrance. For FY 1984, the security needs of the National Museums of Natural History/Museum of Man and American History have been identified as having the highest priority for the use of the funds requested. These Museums contain artifacts and objects of immense and escalating intrinsic value and others of priceless, cultural, esthetic or scholarly worth. Both of these buildings were constructed in times when the dangers to the collections, visitors and staff were not as great as today.

An amount of \$1.7 million is included in the FY 1983 budget in a special security upgrading package. Of that amount, \$1.336 million is a one-time expenditure to strengthen storage and perimeter security, secure exhibit cases, expand closed-circuit television surveillance, purchase motion detection devices, and replace outmoded equipment. The amount of \$480 thousand sought in FY 1984 will be used specifically to build on the programs to be initiated in FY 1983 to strengthen perimeter security and purchase additional closed-circuit televisions. Perimeter security will be improved by purchase and installation of balanced magnetic contacts for exterior doors and trap doors, burglar alarm systems for roof doors and glass-break or new type vibrator sensors for windows. Additional closed-circuit televisions will permit observation of locations such as hallways, stairwells and collection storage areas in which guards usually are not posted.

Additionally, 48 new positions and workyears and \$720 thousand are requested to increase the Office of Protection Services (OPS) base resources of 527 workyears and \$12.906 million. The proposed new positions are needed desperately for additional museum security guards who will be allocated to meet the most serious security needs in the National Museum of Natural History/Museum of Man, the National Museum of American History, the National Museum of American Art, the National Portrait Gallery, the National Air and Space Museum, the Freer Gallery of Art, the Arts and Industries and Smithsonian Institution Buildings and to strengthen the Canine Unit.

Thorough evaluation of the Institution's protection requirements indicate that existing facilities are understaffed by 109 full-time permanent guards. This staffing shortage poses a very serious threat to the safety and security of the Smithsonian's visitors, staff, and collections, and also creates an inconvenience to visitors when the galleries are closed because not enough guards are available to protect them.

The large number of guards that are required is more clearly understood if assignments are explained. Security officers basically are responsible for areas designated as "posts." A post may be one point (for example a museum entrance) or an area varying in size and determined by its use, crowd conditions, the value of the objects on display, the vulnerability of those objects to accidental damage, vandalism or theft, the effective field of vision of the assigned protection personnel, and the ability to use electronic devices. The number of guards required to staff one post may vary from one (a post staffed eight hours a day, five days a week) to five (a post staffed 24 hours a day, seven days a week).

Because of the serious staffing shortage, OPS already has been forced to redefine posts covering exhibit areas. Most of the current gallery posts require a guard to observe two or three, and sometimes as many as four, exhibit areas. This has reduced drastically the guards' effectiveness and efficiency and substantially increased the response time to alarms. Since the signals of even the most sophisticated security systems must be responded to, an adequate number of guards is an essential complement to the planned equipment upgrading.

CURRENT SERVICES DECISION PACKAGE 5
Smithsonian Institution
 Salaries and Expenses: 33-0100-0-1-503

Activity description: Automation. The Institution is requesting an amount of \$915,000 for purchase of computer and communications equipment to support a range of information systems development. The areas addressed in this request are: object collections management; systems for libraries and special collections; and information systems for management of personnel and financial resources. The Institution's management will oversee developments in these areas to ensure technical compatibility, cost reductions through combined purchasing, shared equipment, and personnel resources where appropriate, and coordination of resulting information systems. With resources sought in this decision package, the Institution will improve information services available to Smithsonian managers and curators, and to the scholarly and general public. (An additional amount of \$350,000 for the purchase of equipment is sought in decision package 12.)

		1984		
<u>Resource requirements:</u>	<u>1982</u>	<u>1983</u>	<u>This Package</u>	<u>Cumulative Total</u>
Budget Authority (\$000)	130,770	143,960	915	149,963
Outlays (\$000)	129,892	142,646	915	148,785
Full-time equivalent employment (workyears)				
Full-time permanent	3,270	3,270	---	3,425
Total	3,570	3,570	---	3,726

Impact on major objectives:

Resources sought in this package will provide: word and data processing capability in the Smithsonian Libraries and the National Museum of American History; an Institutionally linked data communications system to promote sharing of centralized and locally distributed equipment resources; information retrieval capabilities for the Smithsonian Institution Libraries and some special collections, including some support for data input at the National Museum of African Art; computer equipment to support collections management in the National Museum of American History; greater data input

capabilities for Institutional projects, including continuation of the inventory of collections; support to improve the quality of information entered into the new personnel/payroll information system; and support for additional mainframe computer time for management of the Institution's financial resources.

Other information:

In common with many areas in the public and private sectors, the Smithsonian is adapting its management strategies to take advantage of changing technologies supporting the accumulation, analysis, and retrieval of information. Moving from an environment of centralized mainframe computers and ADP staff--through an interim period of mixed and often uncoordinated equipment purchases and staffing--the Institution now finds itself in a technical environment ideal to a system of decentralized computing capabilities that will be centrally conceived and coordinated to satisfy local user requirements. The users--managers, curators, conservationists, etc.--will have computing resources more responsive to their needs, supporting information systems which can provide interdisciplinary and inter-bureau access to data. In many cases, automated information systems will promote conservation of human resources by making individual curators and managers more productive. Institutional management will coordinate developments to ensure that individual, bureau and Institutional requirements are met in a cost effective manner.

The following provides a bureau-oriented discussion of the actions projected in this package to be coordinated by central Institutional management.

-- Office of Information Resources Management (+\$177,000) - The Office of Information Resources Management (OIRM) assists Institutional management in the coordinated development of information systems. Relevant to the activities projected in this package, OIRM will assist the Smithsonian's movement toward a distributed or decentralized processing environment.

Distributed data processing is most effective when supported by a data communications system to link individual computers, word processors or other equipment. Computer-to-computer communications make possible common applications of data entry, word processing, data analysis and data base management systems. From the user's viewpoint, networking results in shared information (for example, electronic mail or collections information). In addition to the communications network, OIRM funds requested here will be directed toward contracted studies to increase the cost effectiveness of bureau projects; and augmentation or replacement of equipment, such as communications, and data entry equipment in the central Information Resources Management computer location.

-- Smithsonian Institution Libraries (+\$350,000) - The Smithsonian Institution Libraries (SIL), a system of 36 branch libraries and collections, serves the Institution and the public through support of Smithsonian bureaus, direct participation in the building of national bibliographic networks, and programs of publications, exhibition, loans and information services. The enormous growth in research publications in all areas of Smithsonian endeavor has been a concern of the Libraries for several years. Development of the capability to cope with this and increased future growth has been the subject of a major planning study. Fundamental to SIL planning is the growing national experience that electronic technologies have advanced to the stage where they will permit major improvements to the total range of library services, hold down the need for additional staffing, and assure the efficient use of researchers' time.

At present, the SIL uses five independent sets of automated systems to perform certain of its functions. These include the national cataloguing (inventorying) base referred to as OCLC (to which SIL adds its current cataloguing); the conversion of OCLC computer tapes to microfiche by the New York Public Library; an acquisition system developed by the Smithsonian's Office of Information Resources Management, which produces book and journal purchase orders and handles fund accounting; on-line searching of commercially available data bases (part of SIL's reference service); and a word processor for administrative purposes. These systems together only begin to provide library users with some of the information retrieval services available today and only begin to replace costly clerical processes necessary in libraries with automation. Furthermore, each of the automated systems currently in use (except for conversion to microfiche) is a separate system, without the ability to share data with the others. Each requires separate computer hardware which is costly and inefficient.

Computer technology now is available to reduce this costly duplication, free existing staff from clerical tasks to perform professional information retrieval work, and increase productive research on the part of scientists and historians by reducing the time now required for lengthy bibliographic services. The integrated system will consist of a centrally managed computerized data base (catalogue) which can be searched through computer terminals and printers located throughout the Institution. In response to these searches, users will receive such data as book location and status, citations, abstracts and eventually complete texts. Links will exist to the national cataloguing and reference data bases and to Smithsonian offices, and there also will be provision for word and data processing. Further, book inventory information will be controlled through use of bar-code labels and readers. In essence, all library services ranging from acquisitions, cataloguing, information retrieval, transmission of library data between branch libraries and management information services such as fund accounting and usage reports will be automated.

A total amount of approximately \$900,000 is needed to establish an automated system that will cover libraries on the Mall and in most outlying locations.

The cost of completing the system for branch libraries on the Mall is estimated to be \$700,000. The sum of \$350,000 sought in this package will permit acquisition of the basic system which consists of a microcomputer, memory, software and some control terminals in the central library computer area. A further amount of \$350,000 (sought in decision package 12) is needed for the additional equipment which would make the system operational. The total amount of \$700,000 for equipment purchases represent one-time costs; system maintenance costs will be met with offsetting productivity savings.

A further amount of approximately \$200,000, planned to be requested in a subsequent year budget, is required for computer and telecommunications equipment that would extend the automated system to all off-Mall branch locations with the exception of the library of the Smithsonian Tropical Research Institute in Panama.

The SIL has begun to prepare for this system by automating serials of Union Catalogue information, converting card catalogue records to machine readable form, renting computer based reference services, and adding terminals in branch libraries. The amount of \$350,000 sought in FY 1984 will permit the acquisition of computer software and hardware for complete cataloguing and information retrieval. A further \$350,000 is sought overtarget for purchase of telecommunications equipment for transmission of data to additional locations throughout the Institution.

-- National Museum of American History (NMAH) Minicomputer System (+\$236,000) - All museums require systems for maintaining permanent and accurate records on their collections. Large museums whose collections have developed over decades and even centuries, such as the National Museum of American History, face the enormous challenge of organizing records on literally millions of accumulated objects. New information also must be incorporated.

As a direct result of accelerated inventory efforts at the National Museum of American History, the Museum's central collection-related master file has grown from 42,000 object records to more than 300,000 records in less than two years. At the completion of the inventory, it is anticipated that there will be over 500,000 object records, containing basic identification data on all items in the collection. Many of these records will be further broken down in future years in order to provide more individualized information about the Museum's voluminous holdings of historical artifacts.

Technology now is available that will enable NMAH to meet its immediate data processing and word processing requirements in a cost effective way with the addition of an integrated minicomputer network. This vital expansion in NMAH's computer capabilities would provide museum curators with access to the master file, enabling them to maintain an up-to-date inventory while monitoring other collections management activities such as loans, location of items between separate storage facilities

(Museum Support Center, Silver Hill and the Mall) and various exhibition locations. For the first time, several offices and departments of the Museum would be able to enter object data concurrently and receive information from the same collections-related master file. Moreover, when large collections are distributed among numerous curators according to discipline (ceramics and glass, numismatics, musical instruments, political history, etc.), it is important for research and exhibition purposes to have a cross-referencing capability. Such a capability, which is inherent in the mini-computer network, would permit access to records of objects by a particular historical epoch, or associated with an event or an individual. The network is compatible with other computer systems including microcomputers which may in the future supplement and extend the system to other museums.

An amount of \$236,000 is sought in FY 1984 for the purchase of an integrated minicomputer system that will perform the functions enumerated above. The system consists of a central processing unit, 14 terminals to be located in the various departments of the Museum, and eight printers, and also includes data processing and word processing software. The Museum plans to rent the equipment in FY 1983. In order to take advantage of the GSA lease-to-purchase option, it will be necessary to purchase the system in FY 1984.

-- The National Museum of African Art (+\$50,000) - An amount of \$50,000 is sought to fund the compilation of a Union Catalogue of all African materials held by the various museums of the Smithsonian Institution. With the initial inventory of the collections of the Institution nearing completion, the basic data now is available to begin the production of such a catalogue. This increased funding will permit the National Museum of African Art (NMAFA) to secure the contractual services necessary to photograph major objects in the collections, conduct necessary research and conservation where needed, and computerize the existing inventory records of the NMAFA in compatible format with records of the collections of the National Museum of Man, the Hirshhorn Museum and Sculpture Garden, and the National Anthropological Archives--thus facilitating research and exhibition activities of all units concerned with the cultures of Africa.

-- Office of Accounting and Financial Services (+\$50,000) - Automation of financial record keeping and reporting is essential to the production of accurate and comprehensive data required for internal monitoring and control and the efficient management of resources. Present efforts to integrate payroll and personnel data, to provide additional affirmative action and human resource applications, to improve cash management through the efficient processing of accounts payable, and to provide detailed information on fund usage are contingent upon the increased use of computer processing applications. The cost of additional computer time as well as necessary systems modifications and enhancements require additional funding of \$50,000. The Office currently has base funding of \$186,000 for these purposes.

-- Office of Personnel Administration (+\$52,000) - Additional resources are sought to meet increased computer maintenance requirements associated with implementation of a new personnel/payroll computer software system. This system, to be initiated in early 1983, will integrate data from several areas of administration and provide a consolidated data base for a wide variety of personnel-related information needs. The proposed funds will be used in part to cover the salary and benefits costs of one full-time employee (workyear authority to be provided within existing availability) to manage all personnel aspects of conversion to the new system including identifying and monitoring system changes, clarifying technical requirements, coordinating and reviewing data entry and providing liaison with other Smithsonian offices and bureaus. The balance of the requested funds will be used to help support the new system including necessary enhancements as personnel regulations change and the cost of computer time for the preparation of reports.

CURRENT SERVICES DECISION PACKAGE 6
Smithsonian Institution
Salaries and Expenses: 33-0100-0-1-503

Activity description: Research. Resources of \$427 thousand are requested to establish ongoing programs for replacement by purchase of scientific equipment needed for research at three science bureaus; to provide adequate base monies to publish and disseminate the results of research at three science bureaus; to permit the more productive utilization for research and exhibition purposes of the collections of African art and artifacts of the National Museum of African Art and the National Museum of Man; and for the management of a major new collection which will be housed in a new gallery in the Quadrangle.

<u>Resource requirements:</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	
			<u>This Package</u>	<u>Cumulative Total</u>
Budget Authority (\$000)	130,770	143,960	427	150,390
Outlays (\$000)	129,892	142,646	427	149,212
Full-time equivalent employment (workyears)				
Full-time permanent	3,270	3,270	--	3,425
Total	3,570	3,570	--	3,726

Short-term objectives:

- To replace and upgrade the quality of scientific test equipment available to Smithsonian research scientists.
- To provide adequate base monies to permit the broad dissemination of scientific research.
- To make more available for research and exhibition objects in the collection of African ethnographic interest.

Other information:

Funds requested in this decision package address scientific equipment and publication needs of the National Museum of Natural History/Museum of Man, the Smithsonian Tropical Research Institute, the Smithsonian Astrophysical Observatory and the National Air and Space Museum. Additional resources are sought for a curator at the National Museum of Man who will develop an active research and exhibition program drawing upon collections in the National Museum of African Art and the National Museum of Man and also for a manager who will oversee a new collection in the Quadrangle.

A. Equipment

-- National Museum of Natural History/Museum of Man (NMNH/MOM) (+\$50,000) - The staff of the National Museum of Natural History/Museum of Man includes over one-hundred scientists, each requiring some specialized equipment to carry out their research. Currently, the Museum is able to provide funds for major equipment purchases on an intermittent basis mainly using lapsed salary monies which have greatly diminished in the past year due to a four percent across-the-board cut to the Institution's FY 1982 appropriation. There is a pressing need to develop a scheduled equipment replacement program in order to provide the tools needed to keep the Museum's skilled staff in the forefront of scientific investigations, and to assure the maximum efficiency and productivity of the staff. An amount of \$50,000 is sought to initiate a program that will allow the purchase of selected state-of-the-art research instruments such as a Nomarski interference microscopy microcomputer which breaks light into its component wave lengths, and a graphics computer used for shape analysis of various organisms.

-- Smithsonian Tropical Research Institute (STRI) (+\$75,000) - To conduct modern research in tropical biology it is necessary to utilize more than traditional observational techniques. Questions concerning animal communication, behavior and structure must rely on sophisticated laboratory and field equipment. Over the years, the Tropical Research Institute has obtained a sizeable pool of research equipment, much of it through surplus or grant and contract activity. This equipment in many cases is over 15 years old and does not meet the requirements of the expanded scientific staff nor incorporate recent technological advances. STRI's equipment base of \$50,000 allows for only limited upgrading of selected pieces of equipment rather than complete replacement of an instrument with state-of-the-art technology. An amount of \$75,000 is sought to develop a comprehensive equipment replacement program, which will allow the highly skilled staff to stay at the forefront of tropical studies. Examples of equipment to be purchased include a faxitron x-ray machine, side scan sonar equipment, a high speed refrigerated centrifuge and an incident light fluorescence microscope.

-- Smithsonian Astrophysical Observatory (SAO) (+\$105,000) - SAO presently has approximately 1,700 items of general laboratory and test equipment with a total replacement value in excess of \$2 million. The equipment consisting of such items as voltmeters, oscilloscopes and spectrum analyzers is used in all laboratory and experimental programs, including detector, maser and laser development. Since approximately 50 percent of this equipment is ten years old or more, many items have become obsolete and expensive to maintain and their use often results in inefficiencies and inaccurate measurements. In the past, SAO acquired general laboratory equipment mainly from excess government property and from portions of grants and contracts. However, sponsoring agencies lately are restricting the use of grant and contract funds for purchase of general laboratory equipment while the quality of excess government property has declined substantially. To remedy the situation, an amount of \$105,000 is sought for SAO to establish a continuing formal program for replacement and upgrading its general laboratory and test equipment.

B. Publications

-- National Museum of Natural History/Museum of Man (+\$50,000) - The main product of the Museum's scientific staff is new knowledge, which must be disseminated rapidly for maximum value. The major part of NMNH/MOM's energies and resources are focussed on scientific research. The research productivity of the scientific staff always has been high and is continuing to grow steadily. In FY 1982, the Museum will publish over 120 books, papers and articles at a cost of approximately \$360,000. An additional amount of \$50,000 is required to defray increased costs of publishing lengthy manuscripts of basic research results; higher page charges levied by outside journals in which the Museum's scientists publish; and higher postage and handling charges.

-- National Air and Space Museum (NASM) (+\$50,000) - The publications program at NASM is devoted to several audiences ranging from the general public to scholars in the field of aeronautics, space sciences and technology. To encompass such a diverse field, publications stem from both the research and exhibit programs. Since NASM's efforts prior to opening its new building in 1976 were concentrated on exhibits, it has only recently developed an active publications program. Additional resources are necessary to keep pace with the increasing publication efforts of an enlarged research staff. In FY 1983, it is estimated that two books and eight brochures will be printed at a cost of \$53,000. Publications are expected to double in FY 1984, as manuscripts now in progress will be completed. An increase of \$50,000 will allow for a publications base of \$100,000 which is more in line with current staff size and research productivity.

-- Smithsonian Tropical Research Institute (STRI) (+\$22,000) - Increasing interest from laymen to specialists on developments in tropical science has occurred over the last decade. The work of the STRI staff in this area has greatly expanded the available information to various audiences. In particular, a growing need for scientific studies written in the Spanish language is perceived in

Central and Latin America, where forests are vanishing at an alarming rate. STRI staff have attempted to meet this growing demand for time-sensitive material but resources have not kept pace with scientific output. Presently, STRI has available \$24,500 for publications to cover the expenses of over 150 publications annually. These funds have been insufficient and have resulted in a base deficiency requiring reprogramming from other critical areas. The numbers of publications are expected to continue to increase in FY 1983 and FY 1984, and additional funds of \$22,000 are requested to provide an adequate publications base and to avoid a reduction in both the quantity and quality of publications.

C. Curatorial Research

-- National Museum of Natural History/Museum of Man (+\$35,000) - In FY 1984, the National Museum of Natural History/Museum of Man is requesting an increase of \$35,000 to support the addition of a curator who would work cooperatively with the National Museum of African Art in the development of an active exhibition and research program. Such a program would draw from the great wealth of traditional African artifacts presently in the collections of both museums. In particular, the curator would search out and make available for research and exhibition those objects in the collection of the National Museum of African Art which are of ethnographic interest and value to the Museum of Man's Anthropology Department and its public, while similarly seeking out and making more available for research and exhibition those objects in the Museum of Man's collection of interest to the National Museum of African Art and its public. Additionally, the individual would assume curatorial responsibility for such future collection material as may be acquired jointly by the two museums, participate in scholarly research contributing to the general body of knowledge of African ethnology and art, and direct and oversee the creation of the Union Catalogue of all Smithsonian African holdings addressed in the "Automation" decision package.

D. Management of Major New Collection

-- Smithsonian Quadrangle Project (+\$40,000) - For over three years now, the Smithsonian has been working closely with the Administration and the Congress regarding the architectural plans and financing for a new Center for the Arts of Africa and the Near and Far East. Perhaps the single most important development in this process occurred on July 28, 1982, when the Smithsonian entered into an agreement with a major collector and philanthropist under which the Institution will receive \$4 million in cash toward the costs of constructing a new museum facility in the Quadrangle, together with a collection of Far Eastern art valued at well over \$50 million. The initial collection of art works, totalling nearly 1,000 pieces, includes Chinese jades spanning a period from Neolithic times (5000-1500 B.C.) through the 20th century, Chinese bronzes from the Shang (ca. 1523-1028 B.C.) through the Han (206 B.C.-200 A.D.) dynasties, and Chinese paintings from the last 1,000 years. In addition, there is a group of near Eastern sculpture and works from ancient Cambodia, India and Thailand and a group of Korean ceramics.

These materials will form the corpus of the collection for that portion of the Quadrangle project which will interconnect with the present Freer Gallery of Art building. Administratively, the Director of the Freer Gallery also will be director of this portion of the facility, and for reasons of efficiency and economy the two units will share many common facilities and support services. As with all magnificent gifts to the National Collections, however, this new opportunity to advance the public's appreciation for the art and cultures of Asia brings with it a corresponding responsibility to care for the art objects themselves. Although the building project itself will not be completed until FY 1986, this process of careful planning must begin well in advance to assure that the final phases of construction dovetail smoothly with the subsequent public opening of the new Gallery. Accordingly, the immediate need that presents itself is to recruit for and hire a manager who will oversee the management of the new collection materials, including plans for their initial receipt and registration by the Smithsonian, their proper storage and care, and for their exhibition and conservation requirements. A sum of \$40,000 is requested for the salary of this individual.

CURRENT SERVICES DECISION PACKAGE 7
 Smithsonian Institution
 Salaries and Expenses: 33-0100-0-1-503

Activity description: Buildings and Facilities Management. Resources included in this package (\$430 thousand) are sought in order for the Institution to increase use of contractual services for professional architectural and engineering services, supplementing staff efforts of the Office of Design and Construction and for grounds maintenance and custodial service at the National Zoological Park; to initiate an equipment replacement program at the Chesapeake Bay Center for Environmental Studies; and to defray utilities and communications costs at the Smithsonian Astrophysical Observatory.

		1984		
<u>Resource requirements:</u>	<u>1982</u>	<u>1983</u>	<u>This Package</u>	<u>Cumulative Total</u>
Budget Authority (\$000)	130,770	143,960	430	150,820
Outlays (\$000)	129,892	142,646	430	149,642
Full-time equivalent employment (workyears)				
Full-time permanent	3,270	3,270	--	3,425
Total	3,570	3,570	--	3,726

Short-term objectives:

-- To provide for contractual services and regular replacement of major equipment items necessary for the efficient operation of the physical plant at Smithsonian facilities.

-- To provide a more appropriate level of Federal program support costs.

Other information:

For FY 1984, a total of \$190 thousand is included in this decision package for contractual services for the National Zoological Park to improve buildings and grounds maintenance and for the Office of Design and Construction to provide additional facilities management services. Such use of outside services fully accords with the criteria set forth in OMB Circular A-76, and will result in holding down the need for additional personnel.

-- Office of Design and Construction (+\$140,000) - This office provides professional architectural and engineering services including short and long-range planning, cost estimating, design services, contract administration and supervision, and space utilization services to the Institution in support of the maintenance, repair and improvement of its physical plant. An amount of \$140 thousand is sought to supplement staff capabilities in contract planning, design, estimating and construction management functions. Improved capabilities are required also for specialized analyses, studies and other services including analysis of existing electrical systems, testing and installation of alternative equipment where failures have occurred, and assistance in meeting emergency situations for which requisite staff experience is not available. FY 1983 base funds available to the Office of Design and Construction for contract services total approximately \$80 thousand. The additional funds being sought will significantly improve the Smithsonian's ability to meet increasing professional requirements, covering all aspects of construction fund management, commensurate with the growth of the Restoration and Renovation of Buildings Account.

-- National Zoological Park (+\$50,000) - An amount of \$50 thousand is sought for the Zoo to augment staff efforts in areas of grounds maintenance and custodial services. Specific contract work proposed includes tree maintenance, grass cutting, vegetation control and cleaning of pavement surfaces and trash containers. Presently, no base funds are available to contract for these services.

-- Chesapeake Bay Center for Environmental Studies (+\$50,000) - An amount of \$50 thousand is requested for the Chesapeake Bay Center to establish a five-year equipment replacement program aimed at reducing escalating equipment repair and maintenance costs, improving safety and lessening disruptions to the Center's scientific, education and facilities maintenance activities due to equipment failures. Equipment items include trucks, off-the-road vehicles, and sedans which average 8.5 years of age in addition to small boats, motors, a large research vessel, several tractors and facilities maintenance equipment. Approval of this request will allow a five-year replacement cycle for selected older major equipment items which support virtually all Center programs.

-- Smithsonian Astrophysical Observatory (+\$190,000) - An amount of \$190 thousand is sought to defray utilities and communications costs at the Smithsonian Astrophysical Observatory (SAO). Currently, these costs are paid from overhead charged to the Federal grants and contracts received by SAO. However, recent studies have indicated that research support costs provided by the Federal appropriation relative to those provided by grants and contracts are too low. The effect of this is to increase the amount of overhead charged to a disproportionately high level. The assumption of utilities and communications support costs by the Federal appropriation with a commensurate reduction in charges to grants and contracts will help to correct this situation.

CURRENT SERVICES DECISION PACKAGE 8
Smithsonian Institution
 Salaries and Expenses: 33-0100-0-1-503

Activity description: Education and Public Orientation. Resources included in this package (\$280 thousand) are sought to begin the process of preparing for extended loans to institutions throughout the nation, the works of art bequeathed to the Hirshhorn Museum and Sculpture Garden by Joseph Hirshhorn; and to provide general operating support for the Visitor Information and Associates Reception Center.

<u>Resource requirements:</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	
			<u>This Package</u>	<u>Cumulative Total</u>
Budget Authority (\$000)	130,770	143,960	280	151,100
Outlays (\$000)	129,892	142,646	280	149,922
Full-time equivalent employment (workyears)				
Full-time permanent	3,270	3,270	--	3,425
Total	3,570	3,570	--	3,726

Short-term objectives:

-- To make resources of the Institution more accessible throughout the nation.

-- To increase responsiveness on the part of the Smithsonian to public inquiries about the Institution.

Other information:

-- Hirshhorn Museum and Sculpture Garden Extended Loan Program (+\$200,000) - The bequest to the Hirshhorn Museum of the private collection of the late Joseph Hirshhorn effectively doubles the size of the Museum's collection and presents a very welcome opportunity for the Smithsonian to assist smaller art museums throughout the country. From a combined corpus of some 12,000 works, it is proposed that approximately 1,000 works from the Museum be made available to these smaller museums for a number of purposes. Some of these presently under study include the following:

- extended loans of works of art that would be used to enhance or supplement already existing museum collections;

- loans of catalogued but unresearched material to university museums' art history departments for student research as part of the local curriculum;

- creation of state by state loan collections along artist or thematic lines which could rotate around the country over a given period of time.

A sum of \$200,000 is requested for FY 1984 to support the costs of selecting these extended loan collections; securing conservation, matting, and framing services as necessary; and crating, shipping, and insuring the collections enroute to their respective destinations. This program, while modest in cost, would do much to share the riches of an outstanding collection of modern art with the rest of the nation.

-- Visitor Information and Associates Reception Center (VIARC) General Support (+\$80,000) - The Visitor Information and Associates Reception Center functions as the Institution's central service organization charged with providing a wide variety of information and assistance services to the public and associate members of the Institution. These include: the Information Volunteer Program, which is responsible for staffing information desks in the Mall museums; the Group Orientation Program, which prepares volunteers to present 3-minute slide lecture orientations to organized groups visiting the Institution; the Castle Docent Program, which trains volunteers to conduct regularly scheduled tours of the original Smithsonian Institution Building; an Independent Volunteer Placement Service, which interviews and assigns volunteers to assist professional staff in specific subject areas; and a Telephone Information Program, which responds to well over 300,000 telephone inquiries annually.

An additional amount of \$80,000 is requested to enable VIARC to keep pace with public demand for its services. The funds would be used to cover general operating support needs including the presentation and reproduction of public information materials; supplies and services for museum information desks, and the orientation, telephone, mail and volunteer programs; communications equipment; and the information management and computer programs.

ENHANCEMENT DECISION PACKAGE 9
Smithsonian Institution
 Salaries and Expenses: 33-0100-0-1-503

Activity description: Collections Management. An amount of \$500,000 is sought to begin a program to replace deteriorated wooden cabinets, used for the storage of plant and insect collections at the National Museum of Natural History/Museum of Man.

			1984	
<u>Resource requirements:</u>	<u>1982</u>	<u>1983</u>	<u>This Package</u>	<u>Cumulative Total</u>
Budget Authority (\$000)	130,770	143,960	500	151,600
Outlays (\$000)	129,892	142,646	500	150,422
Full-time equivalent employment (workyears)				
Full-time permanent	3,270	3,270	---	3,425
Total	3,570	3,570	---	3,726

Short-term objectives:

-- To remedy a potentially serious specimen storage problem concerning a portion of the National Collections under the custodianship of the National Museum of Natural History/Museum of Man.

Other information:

The National Collections housed at the National Museum of Natural History/Museum of Man form an incalculable asset to the public and to the world's scientific community. The care of these collections is the primary obligation of the Museum and considerable resources have been devoted to this function over the last several years. While the Museum Support Center will provide improved storage for part of these collections, resources are needed also to remedy deficiencies for those collections that will remain on the Mall.

The Museum's plant, insect, and anthropological collections are all highly vulnerable to damage from insects which eat organic material. The anthropological collections will be moved in their entirety to the new Museum Support Center and thus will be protected from such damage, but the bulk of the plant and insect collections (approximately 80 percent of each collection) will remain in the Natural History Building.

These collections currently are housed in 35 to 40 year old wooden cases and cabinets which have never been completely insect tight. As they have aged, new cracks have developed and old seals have failed. Coupled with the increased opportunity for greater insect infestation is the disappearance from the market of effective pesticides. Increasingly stringent regulations now prohibit the use of potent pesticides such as DDT and carbon tetrachloride. As a result, the collections held in these aging cases and cabinets have become more and more vulnerable to insect infestation and damage from various species of dermestid beetles, silverfish, and clothes moth larvae which can reproduce in as little as 43 days. Thus the Museum can expect continued damaging infestation in both the plant and insect collections.

The care of the National Collections of insects and plants is the responsibility of the National Museum of Natural History/Museum of Man. These collections represent comparative material drawn from all parts of the world and serve as a sort of reference encyclopedia for the present and future generations of scholars and interested public. The occurrence of serious damage to a specimen represents an irretrievable loss. The means to prevent deterioration and loss is through improved encasement.

Accordingly, the Institution plans to seek, over a period of years, a total of \$1,400,000 to replace antiquated wooden cabinets with steel cases which will effectively protect the collections from further deterioration and allow for improved conservation. It is expected that steel cases will have a life expectancy of over 50 years. A sum of \$500,000 is requested in FY 1984 for the first phase of this program.

ENHANCEMENT DECISION PACKAGE 10
Smithsonian Institution
Salaries and Expenses: 33-0100-0-1-503

Activity description: Buildings and Facilities Management. For FY 1984, resources of \$964 thousand are requested to improve physical plant maintenance and support capabilities.

			<u>1984</u>	
<u>Resource requirements:</u>	<u>1982</u>	<u>1983</u>	<u>This Package</u>	<u>Cumulative Total</u>
Budget Authority (\$000)	130,770	143,960	964	152,564
Outlays (\$000)	129,892	142,646	964	151,386
Full-time equivalent employment (workyears)				
Full-time permanent	3,270	3,270	--	3,425
Total	3,570	3,570	--	3,726

Short-term objectives:

-- To provide adequate base funding for the purchase of supplies, materials and equipment necessary for efficient operation of the physical plant in support of ongoing research exhibitions, education and collection management activities.

-- To correct a workhour shortage in order to permit appropriate maintenance and repair of the physical plant.

Other information:

-- Office of Plant Services (OPlants) (+\$300,000) - Funding in the amount of \$300 thousand is required to correct a shortage in the Office of Plant Services' base for essential supplies, materials, and equipment needed to operate, maintain and repair 11 museums and other buildings in the Washington metropolitan area. Experience in previous years has shown that large amounts were reprogrammed from research, exhibitions and collections management programs of museums and research organizations in order to defray this base shortage.

OPlantS base shortage dates back to approximately 1977, and is primarily attributable to the dramatic inflationary increases in the price of oil-based products used for electrical, plumbing, paint, carpentry and mechanical maintenance and repair. The Institution's inflation requests of seven percent annually beginning in FY 1981 did not address the cumulative reductions in purchasing power experienced since 1977 when the annual rate of inflation for oil-based products jumped to 20-25 percent. For FY 1983, a program increase of \$650 thousand and an inflationary increase of approximately \$128 thousand were requested to bring OPlantS' base funding for supplies, services and equipment to a level more consistent with anticipated expenditures. Although these increases were granted, at the same time, OPlantS absorbed a reduction of \$940 thousand in base operating funds due to the across-the-board four percent reduction in the FY 1982 Appropriation Act. This cut in operating funds was particularly acute since no reduction was possible in non-deferrable utilities and rental funds (part of OPlantS' base).

Although OPlantS strives to economize wherever possible, including procuring many supply and equipment items through the General Services Administration, purchasing in bulk quantities, and requiring competitive bidding whenever appropriate, the net effect of the budgetary actions to date has left a base deficiency of approximately \$300 thousand. If this request is approved, we would expect that subsequent year proposed increases will be limited to inflation according to OMB guidelines.

-- Office of Plant Services (OPlantS) (+\$664,000) - An amount of \$664 thousand is sought to provide adequate base funds for contractual services and to alleviate excessive recurring backlogs in maintenance work and emergency electrical, plumbing and mechanical repairs. Such use fully accords with the criteria set forth in OMB Circular A-76.

During the past eight years, OPlantS has striven to improve its capability to maintain and repair building components and utility systems in ways that would conserve staff time. Examples of efforts include initiation of a computerized preventive maintenance program for heating, ventilating and air conditioning systems at Smithsonian buildings on or near the Mall, installation of a computerized monitoring system to reduce the need for engineer watch tours, and assignment of OPlantS staff to the maintenance and repair of roofs, fire alarms, electrical distribution systems, and piping insulation tasks. During this time, however, increased bureau dependence on OPlantS for program and exhibit support work has contributed to the backlog in the trades and crafts shops and to the difficulties in planning and scheduling work. To cope with the situation, in FY 1982, a workhour quota system was initiated which redirected workhours previously assigned to program and exhibit support to basic maintenance and repair of the physical plant. Although the concept is good and will be continued, elimination of work backlogs cannot be fully achieved due to staffing shortages. For example, the paint shop is currently backlogged by 30 weeks; sheetmetal shop, 22 weeks; plaster shop, 14 weeks; plumbing shop, 14 weeks; and the cabinet shop, 11 weeks. These backlogs are expected to continue because of the age of buildings and the constant maintenance and repair required to keep them in good condition.

To the extent that these backlogs are not corrected, operating equipment including heating, ventilating and air conditioning systems and electronic environmental control systems necessary for the comfort of visitors and protection of the National Collections can be expected to fail with more regularity. Additionally, fire, smoke detection and suppression systems essential for the protection of visitors, staff and the collections could be placed in jeopardy due to lack of adequate maintenance. A fully effective maintenance program can, in the long run, help reduce the scope of the Restoration and Renovation program.

OPlantS' base resources presently are insufficient to make more use of independent contractors to perform this work. The proposed increase will be used to contract out for a variety of services, including mechanical systems maintenance and repair, interior and exterior maintenance, and smoke/fire alarm maintenance and repair. The use of contractors will lessen the need for additional personnel and reduce the excessive backlog in virtually all trade and craft shops. A further benefit of the requested resources is that work in progress will not have to be interrupted or cancelled in order to meet emergency needs.

ENHANCEMENT DECISION PACKAGE 11
Smithsonian Institution
Salaries and Expenses: 33-0100-0-1-503

Activity description: Security. Resources of \$1 million are requested to continue the phased program to strengthen security for Smithsonian facilities. (An additional amount of 48 full-time permanent positions and workyears and \$1.2 million is sought in decision package 4.)

<u>Resource requirements:</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	
			<u>This Package</u>	<u>Cumulative Total</u>
Budget Authority (\$000)	130,770	143,960	1,000	153,564
Outlays (\$000)	129,892	142,646	1,000	152,386
Full-time equivalent employment (workyears)				
Full-time permanent	3,270	3,270	--	3,425
Total	3,570	3,570	--	3,726

Short-term objectives:

- To accelerate the conversion to an electronic and fire alarm system that is completely owned and operated by the Smithsonian.
- To upgrade the security devices and systems in most Smithsonian facilities to reduce the threat of theft and vandalism.
- To provide a safe, secure environment for visitors, staff and the collections.

Other information:

The Smithsonian has conducted comprehensive studies of security conditions at all museums and facilities of the Institution, resulting in identification of areas where security coverage is not adequate and opportunities exist for theft, break-in or vandalism. In order to correct these deficiencies, an estimated amount of \$5.3 million will be required for additional security personnel and

for new, upgraded security equipment. The Institution initiated its request for these resources in FY 1983 with plans to request the balance of these resources over several years, devoting attention first to those areas where the most serious gaps still exist in the security of the visitors, staff and collections. The estimate of total requirements will be examined annually as problems are corrected and projections revised to reflect work yet to be done and the then-current costs.

For FY 1984, an amount of \$1.48 million is requested for one-time costs associated with security equipment in 19 Smithsonian bureaus. Of the amount sought, \$480 thousand is included in decision package 4 and the balance of \$1 million is requested in this package. For many years, the Institution has met security requirements on the basis of reacting to the most critical need of the moment. As a result, the security of the National Collections has been uneven and in some instances inadequate. Several museums have systems which are obsolete or function only intermittently with frequent attention required. Others have large areas of non-public space which are not monitored and where access is not controlled, or have only lock and key arrangements which provide a minimum of security but which would not prevent a determined unauthorized entrance.

An amount of \$1.7 million is included in the FY 1983 budget in a special security upgrading package. Of that amount, \$1.336 million is a one-time expenditure to strengthen storage and perimeter security, secure exhibit cases, expand closed-circuit television surveillance, purchase motion detection devices, and replace obsolete equipment. A requested FY 1984 increase of \$480,000 sought in decision package 4 will be used specifically to build upon the programs to be initiated in FY 1983 to strengthen perimeter security and purchase additional closed-circuit televisions. The additional amount of \$1 million sought in this package will be used to accelerate the Institution-wide conversion to a proprietary security system (discussed in more detail below); to enhance further closed-circuit television surveillance through the purchase of cameras, monitors and video control systems; to strengthen exhibit and interior security by re-glazing or purchasing exhibit case covers, locks and alarms; and to replace worn out or obsolete equipment such as balanced magnetic contacts, ultrasonic detectors and radios.

A key part of the Institution's upgraded protection program involves the conversion to an electronic security and fire alarm system that is completely owned and operated by the Smithsonian. Plans call for the conversion to occur during the next decade. The purposes of converting to a proprietary security system are to gain faster response times to security and fire protection alarms; to improve the quality of and to control information transmitted from the security devices and fire sensors to the building security offices and the central control room; to manage and control systems maintenance; and to eliminate reliance on leased equipment, outside sources of power and related contractual services, the costs for which are escalating rapidly. The fire detection and security sensors that are elements of this system will be linked to eight local control rooms and to a central control room that monitors all activity and provides emergency backup control. Closed-circuit television controlled by the computer would allow the control room operator to assess the problem. Patrolling guards would be dispatched to the area of the activated sensor for appropriate action.

With resources sought in FY 1984, the Smithsonian will be able to complete the first installation of the proprietary security system at a building on the Mall--the National Museum of American History. The installation will require the purchasing of multiplexers, cabling, and data gathering panels; the laying of a conduit between the National Museum of American History and the National Museum of Natural History/Museum of Man; and the rewiring of existing devices for integration into the new system. The current estimate for the total phased conversion is \$6.7 million. (Funding for the proprietary security system to be used for making building alterations and for purchasing permanently installed equipment also is included in the Restoration and Renovation of Buildings account.)

The following table shows past and current costs as well as future requests for the proprietary security system by appropriation account.

(Dollar in thousands)

<u>Fiscal Year</u>	<u>S&E</u>	<u>R&R</u>	<u>Total</u>
1980 actual	\$486/ <u>1</u>	--	\$486
1981 actual	440/ <u>1</u>	--	440
1982 est.	789/ <u>2</u>	\$300	1,089
1983 est.	440	300	740
1984 est.	640/ <u>3</u>	300	940
1985 est.	640	300	940
1986 est.	640	300	940
1987 est.	640	300	940
1988 est.	<u>240</u>	<u>--</u>	<u>240</u>
	\$4,955	\$1,800	\$6,755

/1 Consists of base amount of \$160,000 plus salary and "other objects" savings applied to system.

/2 Consists of base amount of \$160,000 plus \$629,000 provided through reprogramming in order to fund a contract with the Hughes Aircraft Company for development of the system.

/3 Includes an additional \$200,000 requested in this package.

ENHANCEMENT DECISION PACKAGE 12
Smithsonian Institution
Salaries and Expenses: 33-0100-0-1-503

Activity description: Automation. An amount of \$350,000 is requested which, combined with an equivalent amount sought in decision package 5, will be used for the purchase of equipment for an automated library system covering the central and branch libraries.

<u>Resource requirements:</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	
			<u>This Package</u>	<u>Cumulative Total</u>
Budget Authority (\$000)	130,770	143,960	350	153,914
Outlays (\$000)	129,892	142,646	350	152,736
Full-time equivalent employment (workyears)				
Full-time permanent	3,270	3,270	--	3,425
Total	3,570	3,570	--	3,726

Short-term objective:

-- To make operational the planned integrated library system for Smithsonian libraries.

Other information:

As explained in detail in decision package 5, the Smithsonian Institution Libraries, a system of 36 libraries and collections, presently uses five independent sets of automated systems to perform certain of its functions. These include acquisition, cataloguing, searching of commercially available data bases, conversion of computer tapes to microfiche, and word processing for administrative purposes. These systems together only begin to provide library users with some of the information retrieval services available today and only begin to replace the costly clerical processes necessary in libraries with automation. Furthermore, each of the automated systems currently in use (except for conversion to microfiche) is a separate system, without the ability to share data with others. Each requires separate computer hardware which is a costly and inefficient system.

Computer technology is now available to reduce this costly duplication, free existing staff from clerical tasks for professional information retrieval work, and increase productive research on the part of scientists and historians by reducing the time now required for lengthy bibliographic searches. The integrated system will consist of a centrally managed computerized data base (catalogue) which can be searched through computer terminals and printers located throughout the Institution. In response to these searches, users will receive such information as book location and status, citations, abstracts and eventually complete texts. Links will exist to the national cataloging and reference data bases and to Smithsonian offices, and there also will be provision for word and data processing. Further, book inventory information will be controlled through the use of bar-code labels and readers. In essence, all library services ranging from acquisition, cataloging, information retrieval, transmission of library data between libraries and management information services such as fund accounting and usage reports will be automated.

The amount of \$350,000 sought in decision package 5 is necessary for the purchase of the basic system. However, in order to electronically link the branches to one another and to the main library, a further sum of \$350,000 is requested for the purchase of terminals, printers and bar-code readers.

The total cost for the Mall system is \$700,000 which represents a one-time expense. System maintenance costs will be met through offsetting productivity savings.

ENHANCEMENT DECISION PACKAGE 13
Smithsonian Institution
 Salaries and Expenses: 33-0100-0-1-503

Activity description: Exhibitions and Performances. Resources in this package (\$584 thousand) will be used for the development of four exhibitions for the Smithsonian Traveling Exhibition program; needed support for the production of live performances; documentation and field research of great artists; and the development of learning guides and program notes of those events presented at the Smithsonian. Public support of these educational programs which reach a broad, general public will assure the continued availability of these activities.

<u>Resource requirements:</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	
			<u>This Package</u>	<u>Cumulative Total</u>
Budget Authority (\$000)	130,770	143,960	584	154,498
Outlays (\$000)	129,892	142,646	584	153,320
Full-time equivalent employment (workyears)				
Full-time permanent	3,270	3,270	--	3,425
Total	3,570	3,570	--	3,726

Short-term objectives:

-- To provide well designed exhibitions at a reasonable and affordable cost for organizations located throughout the United States.

-- To enhance the learning experience by providing educational leaflets and by conducting live performances in conjunction with selected museum exhibits.

-- To document for research purposes the art and life experiences of great American performers.

Other information:

-- Division of Performing Arts (+\$32,000) - The requested amount of \$32,000 would permit the documentation of performances in the areas of musical theater, dance, jazz, country and chamber music through the use of video and audio tape, and photography for recording workshops and lecture demonstrations. Unfortunately, the art and life experiences of many artists go undocumented. By recording these sessions of participating performers, who through their art are carriers of American cultural tradition, resources become available for research purposes to be used by cultural historians, musicologists and scholars. The proposed funds also would be used for field research to conduct interviews and prepare evaluations of performers and choreographers whose work may not be well known or whose artistry is in danger of being lost.

-- Division of Performing Arts (DPA) (+\$152,000) - The request of \$152,000 is needed to support the cost of concerts, plays, and readings in conjunction with current exhibitions on view. These performances would enliven the exhibitions of art and historical artifacts. The proposed funds will provide resources for planning, research, programming and repertory selection, musical and script preparation, artists' fees, design and technical support. All performances will be developed by DPA and the museum's curatorial staff. Where possible, performances will be video-taped for continuous viewing, for documentation and for dissemination to other museums. Several examples of performances provided recently are: six concerts presented as part of the exhibition of Eisenstadt photographs in collaboration with the National Museum of American Art; two performances of Korean music and dance as part of the exhibition "5,000 Years of Korean Art" in collaboration with the National Museum of Natural History/Museum of Man; four annual performances of music, theater and dance from Asia in collaboration with the National Museum of Natural History/Museum of Man; production of a play--The Ephemeral is Eternal as part of the De Stijl exhibition in collaboration with the Hirshhorn Museum and Sculpture Garden; and the annual Holiday and Spring Celebrations in collaboration with the National Museum of American History.

-- Division of Performing Arts (+\$40,000) - An amount of \$40,000 is requested to publish, develop and disseminate learning guides and program notes to scholars, teachers and the general public. Learning guides are carefully prepared learning packets which enhance the educational experiences of young visitors and are designed for classroom use prior to and after visitation to the Discovery Theater. The Discovery Theater has conducted performances of storytellers, puppetry, dance and music to an audience of 52,000 children and 805 school groups during the 1981-1982 season.

A portion of these funds will be used for program notes that are prepared for each concert performance, comprised of historical essays and data about the music performed, the instruments involved, the history of previous performances, and recommended supplemental reading and listening materials. The program notes are distributed annually to an audience of more than 200,000 and are in great demand by scholars and teachers throughout the country for use in research projects, classroom teaching, and newspapers, periodicals, and journals.

-- Smithsonian Institution Traveling Exhibition Service (SITES) (+\$360,000) - The proposed resources will be used for research design and production of several new exhibitions each year in multiple sets to tour the United States. Design of each exhibition will allow user museums to supplement basic SITES materials with objects from their own collections. In this way, each museum can present a distinctive exhibition by drawing upon its own local resources, presenting local collections in combination with National Collections in shows and themes of high quality and educational value. At the same time, research, production, and shipping costs will be reduced substantially.

Four new exhibitions are envisaged. Dinosaurs, based on the newly refurbished hall at the National Museum of Natural History/Museum of Man, will include actual specimens or facsimiles from the Smithsonian collections, and allow use of additional artifacts widely available on a local level; American Dress-Up will emphasize the role of dress and heritage of local dress customs which will be readily adaptable to all sections of the United States; Mary McLeod Bethune will emphasize the role of this pioneering Black educator in education and racial equality during the course of her life, 1875-1955, and will include a catalogue and video-tape containing interviews with those who knew Mrs. Bethune; and The Wilkes Voyage, honoring the 1838-1842 U.S. Exploring Expedition which will include specimens that formed the basis for the Smithsonian's early collections. It will allow local museums to emphasize their own research and collection efforts, and will be based on a presentation which will be shown in the Evans Gallery in the National Museum of Natural History/Museum of Man in 1985.

These exhibitions will replace several panel shows developed as part of the Bicentennial of the American Revolution which over the years have become dated and worn from use. The new shows will be available for participatory fees in the \$600 to \$1,000 range. SITES' production of relatively inexpensive shows enables small museums, historical societies, small libraries, colleges and universities which have limited financial resources and lack exhibit design and production capabilities to offer exhibitions of high quality to their constituency.

CONSTRUCTION DECISION UNIT
CURRENT SERVICES DECISION PACKAGE 1
Smithsonian Institution
(0129)
Construction: 33-(0132)-0-1-503
(0133)

Introduction:

The Smithsonian's facilities consist of 12 museum and gallery buildings in Washington, D.C. and New York City housing a wide range of exhibitions in the fields of science, history, technology and art, as well as research and collections management activities. These facilities range in age from new to well over 100 years old. In addition, the Institution operates and maintains a National Zoological Park on 168 acres in Rock Creek Valley with an associated 3,150 acre conservation and research center near Front Royal, Virginia; the collection preservation, storage, and air and space-craft display facility at Suitland, Maryland which is also the site of the Museum Support Center now nearing completion; centers for biological research, conservation and education in Panama and on the Chesapeake Bay in Edgewater, Maryland; a center for astrophysics in Cambridge, Massachusetts, and the Whipple Observatory on Mt. Hopkins in Arizona; an exhibitions preparation laboratory at Fort Stanton Park in Washington, D.C.; and a number of administration, storage, reference, distribution and other support facilities located primarily in leased space. The Smithsonian maintains most of the properties which it holds, and substantial work is required to keep them in good repair. The needs and demands are multiple. For example, the museums should be places where visitors derive pleasure from viewing the collections and learning about what they symbolize or what they can tell us about our own history. Over 25 million visits to the Smithsonian museums and the National Zoological Park are recorded each year. In order to promote a sense of welcome and a desire to discover, the physical condition of the museums must be good. The Institution also has the legal responsibility to serve as the official repository of the National Collections (20 U.S.C. 41, et seq.), and, as such, must maintain a proper environment for art objects, live animals, natural specimens and artifacts. Visitor and staff safety and security also demand that facilities be in proper repair. The Occupational Safety and Health Act of 1970 (29 U.S.C. 651 et seq.) requires all employers to assure that their work places conform to certain health and safety standards. Several Smithsonian buildings are included on the National Register of Historic Places, which imposes a special responsibility under the provisions of the National Historic Preservation Act to insure that they are preserved in a manner consistent with their status. Greater awareness and attention to the needs of disabled persons, as reflected in the enactment of recent legislation, have resulted in the establishment of additional requirements for all of the Institution's facilities in order to make them more accessible to all visitors and staff. Finally, new program objectives or research needs at the Smithsonian's outlying facilities present additional requirements for repair and renovation work. By maintaining and developing these facilities, the Smithsonian can continue to be in the forefront of research in several major fields of study.

Long-range goals:

-- To maintain a physical plant containing adequate and secure space in an environment that provides stable temperature and humidity conditions for proper conservation, housing, display and study of the National Collections, and that insures the safety, security and accessibility of the public and staff who visit or who work in these facilities.

-- To complete the Master Plan for the National Zoological Park approved by the Commission of Fine Arts and the National Capital Planning Commission in FY 1973.

-- To complete the development plan for the Front Royal Conservation and Research Center.

Major objectives:

-- To correct structural and systems deficiencies in a physical plant containing over 4.5 million square feet, with buildings ranging in age from new to over 100 years with a replacement value of over one billion dollars.

-- To promote energy efficiency and conservation.

-- To comply with legislative requirements on occupational health and safety and needs of disabled persons.

-- To plan for, and construct new facilities to meet the exhibitions, research and collections management needs of the Institution.

The performance of the following activities will insure that these objectives will be met.

-- Major restoration and renovations, generally of a long-term nature and benefit to the Institution, which are beyond the capability of the Institution's maintenance staff. These projects include repairs to roofs and building exteriors, repairs and alterations to utility systems to provide improved, energy efficient environments within the buildings and other repairs and improvements of a more general nature.

-- Continued development and execution of comprehensive fire protection master plans and installation of fire detection and suppression systems.

-- Provision of access for disabled persons, correction of unsafe conditions and installation of security equipment for a proprietary alarm system. This category includes projects that will provide greater security, health and safety for the collections, as well as for the visiting public and staff and facilities modifications to mitigate or eliminate existing architectural barriers.

-- Modifications of facilities to meet program objectives, such as the development of the Whipple Observatory at Mt. Hopkins, Arizona, construction of an addition to the Anacostia Neighborhood Museum's exhibits laboratory and improvements to the Smithsonian Institution Libraries in the Natural History Building.

-- Continued development of the Front Royal Conservation and Research Center with construction of a hospital and completion of a small animal facility.

Alternatives:

1. Provide no additional space. This alternative would seriously impair and disrupt planned and current programs and activities of the Institution that are fundamental to its research, exhibition and educational missions.

2. Significantly increase rental space. This approach would be costly on a long-term basis and would be subject to inflation and other cost-escalating factors. Scattered locations would increase logistical support and protection costs and would require duplication of staffing and associated laboratory and other support spaces. Moreover, it is likely that extensive modifications would be necessary to adapt leased space for the unique space and environmental needs associated with collections storage, conservation and research.

3. There is no alternative to performing necessary repairs and improvements to Smithsonian facilities. Failure to improve the physical plant will endanger the well-being of the collections, the visiting public and the staff; result in costly operating inefficiencies and increased energy consumption as building systems (electrical, plumbing, heating, ventilating and air conditioning systems) cease to function properly; result in the deterioration of building exteriors; contribute to a gradual degradation in the appearance of the buildings; and make it impossible to comply with existing legal requirements pertaining to occupational health and safety and accessibility for disabled persons.

4. Regarding the performance of work, there are two alternatives: 1) accomplish the work entirely by contract, and 2) use Smithsonian labor to perform all or certain aspects of the work. Most routine repairs are performed by the Office of Plant Services for Mall museums and by the Zoo's own maintenance staff at the Rock Creek Zoo and Front Royal Conservation and Research Center. Construction and improvement work is accomplished primarily by contract except in instances when suitable contractors cannot be located, or their estimates are exorbitant in relation to the proposed job. In such instances, accomplishment of the work by other means such as the purchase of supplies, materials, and equipment, and use of current staff or temporary labor, is the most economical alternative. Furthermore, it is necessary occasionally to fund other expenses from this account, particularly those at the Zoo associated with the displacement of animals as a result of the construction program or major grounds maintenance in repair of storm damage.

Accomplishments:

-- Restoration and Renovation of Buildings - Significant progress has been made since FY 1980 in strengthening the Restoration and Renovation of Buildings program to assure the maintenance, preservation and development of the Institution's facilities. During the next five years, special emphasis will be given to improving the efficiency and reliability of heating, ventilating and air conditioning systems, as well as to repairing and renovating building exteriors. The improvement of fire protection systems will continue, as will projects designed to provide a more safe and accessible environment for visitors and staff.

Facade, roof and terrace repairs. In FY 1982, the Renwick Gallery facade renovation progressed into the construction phase of precasting the replacement building parts, preparation of the existing facade and placement of the new facade. This construction phase will continue through FY 1983. During FY 1982, a construction contract was awarded for the replacement of the northwest quadrant of the Arts and Industries Building's roof. This quadrant is expected to be completed in June 1983. The exterior repairs and the roof replacement on a quadrant by quadrant basis will continue through FY 1983. Also, the roof repairs at the American Art/Portrait Gallery Building were completed in FY 1982. Major projects expected to be completed in FY 1983 are recaulking and repointing the facades of American Art/Portrait Gallery and the American History Buildings and the cleaning of the Hirshhorn Museum Building's facade. Additional projects planned for FY 1983 include: facade and roof repairs at the Air and Space Building; design of the roof replacement at the American History Building; and facade repairs to the Cooper-Hewitt Miller House in New York City.

Fire detection and suppression systems. In FY 1983, progress will continue in upgrading the fire protection systems at the American History and Natural History Buildings. In the American History Building, electrical trunk lines will be designed and installed for smoke detection systems and sprinkler enunciation alarms. In the Natural History Building, the east wing sprinkler piping will be completed, fire walls between both wings and the main building will be installed and sprinkler and smoke detection systems will be installed in an exhibit area. Other projects scheduled for FY 1983 include: installation of sprinkler and smoke detection systems at the Arts and Industries and Freer Gallery Buildings; installation of smoke detectors in the Smithsonian Institution Building and in various buildings at the Chesapeake Bay Center; installation of wet pipe sprinkler systems in the basement areas of the American Art/Portrait Gallery Building; and projects to improve fire protection capabilities on Barro Colorado Island at the Smithsonian Tropical Research Institute in Panama.

Access for the disabled, safety and security and correction of hazardous conditions. In FY 1982, the removal of asbestos insulation from the attic spaces in the American Art/Portrait Gallery Building began and will continue through FY 1983. The procurement of equipment and building alterations needed for the conversion to an electronic security and fire alarm system owned and operated by the Smithsonian began in FY 1982 and will continue in FY 1983. Safety improvements including asbestos removal and installation of fire detection and suppression systems were completed in FY 1982 at one of the Museum of American History's storage buildings in Suitland. In FY 1982, rest room modifications needed to provide better access for disabled persons were completed at the Natural History, American History, Air and Space and Renwick Gallery Buildings. For FY 1983, a dust collection system will be installed in the American History Building's object processing facility to protect employees and improve fire safety.

Utility systems repairs and improvements. In FY 1982, comprehensive heating, ventilating and air conditioning (HVAC) studies and energy audits are being conducted for most of the buildings in order to plan for future improvements. The data gathered by these studies is providing a basis for determining redesign or replacement needs; development or revision of construction cost estimates; and for establishment of priorities for the repair, replacement or modification of HVAC equipment. Accomplishments during the past year include the completion of comprehensive HVAC studies and designs, and energy audits at the Arts and Industries, Cooper-Hewitt, Air and Space, and Smithsonian Institution Buildings and on Barro Colorado Island at the Smithsonian Tropical Research Institute. Heating, ventilating and air conditioning and energy studies are continuing at the Hirshhorn, Natural History and American History Buildings. Also, in progress is the design for upgrading the water and sewage systems on Barro Colorado Island at the Smithsonian Tropical Research Institute. Improvements based on the Arts and Industries Building's HVAC study will begin in September 1982. The first major construction phase for the renovation of HVAC systems at the American Art/Portrait Gallery Building began and the first and second construction phases for the Freer Gallery Building's HVAC renovation were completed in FY 1982. Continued progress on these phased projects is planned for FY 1983. Other projects planned for FY 1983 include replacement of the main cafeteria sewage ejector at the American History Building, replacement of heating and cooling coils at the Hirshhorn Building, construction of a water treatment facility on Barro Colorado Island at the Smithsonian Tropical Research Institute, and replacement of the emergency generator switchgear at the Whipple Observatory in Arizona.

Other projects. At the Whipple Observatory in Arizona, safety improvements for the single lane 20 and one-half mile access road will be completed in FY 1983. At the Smithsonian Tropical Research Institute, construction started on a new library at a central location. Space area modifications and improvements continued in FY 1982 for the Smithsonian Institution Libraries at the Natural History Building. In FY 1983, improvements to the Museum of American History's collection storage building 16 at Suitland will be completed. These improvements will provide increased fire protection capabilities and special temperature and humidity controls necessary to avoid further deterioration of the stored artifacts.

-- The National Zoological Park construction at the Rock Creek Park continues to follow the Master Plan guidelines. In early FY 1983 the Monkey Island Exhibit will be completed. This exhibit will show the animals in spacious indoor and outdoor enclosures that will closely approximate their natural habitat. This is the final major facility in the central area complex. In FY 1983, the planning and preliminary design of the Olmsted Walk Exhibits projects will begin. These consist of a series of small exhibits planned for the Connecticut Avenue pedestrian and vehicle entrances, as well as along the central walkway. The exhibits will complement the major exhibit areas. At the Front Royal Conservation and Research Center, construction was completed in FY 1982 on the second phase of the Small Animal Facility. This complex will be used for small animal breeding, and will provide research/health facilities and a backup holding space for the Rock Creek collection.

Activity description: For FY 1984, resources of \$12.5 million are requested for restoration and renovation of the physical plant; and for construction projects at the National Zoological Park.

The Restoration and Renovation of Buildings (R&R) appropriation account is used to fund building repairs, alterations and improvements, as well as the construction of additions to existing facilities and minor new facilities. The total request for the R&R account in this package is \$9 million. (A further amount of \$2.615 million for additional R&R work is sought in decision package 2.) This request, which builds on the Smithsonian's FY 1983 appropriation request of \$8.45 million, reflects the Institution's continuing strong commitment to address the needs of a large and complex physical plant that includes monumental buildings of historical character. The R&R request is divided into the following six categories: general repairs and improvements; facade, roof and terrace repairs; fire detection and suppression systems; access for the disabled, safety and security and correction of hazardous conditions; utility systems repairs and improvements/energy conservation; and other projects in support of programmatic needs.

For the period FY 1984-FY 1988, the Institution has identified important needs in these categories that are estimated to cost \$69.346 million. The FY 1984 request is intended to address those needs in a realistic and systematic way so that the work will be accomplished efficiently in accordance with established priorities.

The National Zoological Park Construction and Improvements account is used to continue to make progress on the approved Master Plan for the improvement of the animal and the public facilities and to perform essential renovation, repair and improvement projects at the Rock Creek Park Zoo and at the Conservation and Research Center in Front Royal, Virginia. Additionally, a development plan for the Front Royal Conservation and Research Center has been established. Under this plan, adequate housing will be provided for the animals along with a small animal facility and a hospital. The total request for the Zoo construction account in this package is \$3.5 million. Zoo funds are sought for the final construction phase of the Small Animal Facility and for the construction of a veterinary hospital at the Front Royal Conservation and Research Center. Funds are requested also for necessary restoration and renovation work both at Rock Creek and Front Royal.

The following planned projects are included in this decision package:

RESTORATION AND RENOVATION OF BUILDINGS.

General repairs and improvements. (+\$345,000) Essential maintenance and repairs will be funded from this category, including road repairs at the Chesapeake Bay Center and repairs needed to improve health and safety conditions at the Smithsonian Tropical Research Institute's Barro Colorado Island facilities. Also, there is an Institution-wide provision for emergency and other repairs due to equipment failures or unanticipated structural defects arising from heavy use, extreme weather conditions or other circumstances.

Facade, roof and terrace repairs. (+\$4,800,000) The phased renovation of the Renwick Gallery facade will continue with the precasting of the replacement building parts, preparation of the facade and placement of the new facade parts. At the Arts and Industries Building the roof and exterior repairs will progress with work at the northeast quadrant towers and entry. This phase consists of the installation of new range, pavilion and entry tower roofs, pointing and cleaning of exterior masonry and replacement of deteriorated windows. Completion of this phase will present a restored and renovated facade on the Mall side of the building. The first construction phase of the American History Building's roof replacement will begin. The roof is nearly 20 years old and with the exception of repairs recently to several areas, no major repairs have been accomplished to date. Leakage resulting from prolonged periods of rain has been observed and poor drainage is potentially a major problem.

Fire detection and suppression systems. (+\$1,085,000) The phased implementation of the fire protection master plans for the Natural History and American History Buildings will continue. At the Natural History Building, the installation of sprinkler systems will be completed. For the American History Building additional sprinkler piping and flow-alarms will be installed and stairwell doors will be modified. Fire protection improvements will progress at the Smithsonian Tropical Research Institute's Barro Colorado Island facilities with installation of fire detection and suppression systems, alarm systems and fire-rated partitions. Sprinkler systems will be installed in the Freer Gallery Building's basement and sales room. Sprinkler systems and fire-rated partitions will be installed in the Smithsonian Institution Building which will complete this project. The fire alarm system at the Whipple Observatory in Arizona will be improved with the installation of fire alarms in four buildings and connection of all systems to a remote central control station.

Access for the disabled, safety and security and correction of hazardous conditions. (+\$785,000) The containment or removal of asbestos materials will continue at the American History Building with the complete removal of asbestos materials; the encapsulation with a spray-on fire retardant material; and the containment with drywall or another suitable material by constructing an airtight inner shell that seals the asbestos between the existing construction and the new shell.

The procurement of computer and display equipment and building alterations required to accommodate equipment for an electronic security and fire alarm system owned and operated by the Smithsonian will continue. This proprietary security system will allow for faster response times to security and fire protection alarms; improve the quality and control of information transmitted from the security devices and fire sensors to building security offices and central control room; and eliminate reliance on leased equipment, outside sources of power and related contractual services, the costs for which are escalating rapidly. The Restoration and Renovation of Buildings account is used to fund building modifications and to purchase permanently installed equipment. (Funding for related equipment including security devices and fire protection sensors is included for the Office of Protection Services in the Salaries and Expenses account.) Emergency telephone and lighting systems will be installed at the Air and Space Building for safety during emergency conditions. There is a lack of adequate emergency lighting in public gallery areas, theater, spacearium, security office, health unit, fire stairs and public garage.

Utility systems, and repairs and improvements. (+\$1,370,000) The maintenance, repair and renovation of the Institution's heating, ventilating and air conditioning (HVAC) systems, and electrical and plumbing systems will be funded from this category. The upgrading of the HVAC systems at the American Art/Portrait Gallery Building will be completed. Improvements include modifications to 19 air handling systems, weather stripping of all windows, installation of storm windows, miscellaneous ductwork modifications and partial fourth floor waterproofing. At the Freer Gallery Building, insulation on the original electrical wiring branch circuit has deteriorated to the extent that the wiring must be replaced. This project will eliminate hazards to maintenance personnel, as well as a potential fire hazard. Cooling tower replacements are scheduled for the American History and Hirshhorn Buildings. The 20 year old cooling tower at the American History Building is in a badly deteriorated state and beyond economic repair. The replacement of both cooling towers at the Hirshhorn Building is included in the overall HVAC modification program resulting from an energy conservation study. The development of a utility master plan investigating the feasibility of a permanent site for the Whipple Observatory base camp in Arizona will begin. The study will emphasize the availability of electrical and sewage systems and the ability of the site utility and sewage systems to absorb the additional load of a base camp. For the Chesapeake Bay Center, a master plan with a detailed sewer system study will be developed. The master plan will examine the feasibility of a possible future move by the Radiation Biology Laboratory to the Chesapeake Bay Center site. The sewer study will deal specifically with solutions to problems associated with the existing sewer system which is inadequate for current programs, as well as solutions to sewer problems which would result from combining the two bureaus at this site.

Other projects. (+\$615,000) A 5,000 square foot addition to the Anacostia Neighborhood Museum's Exhibit Laboratory at Fort Stanton will be constructed to provide for a public exhibit facility with areas for storage and support operations. The present exhibit facility, consisting of a converted theater located on Martin Luther King Avenue, is not only physically inadequate for museum education purposes but is in a crime area inimical to public use of the museum. Improvements to the Smithsonian

Institution Libraries space in the Natural History Building will continue. These improvements include establishing suitable reading areas for periodicals and microforms and improving the traffic flow in the area; improving access to maps and atlases; constructing two small study rooms for visiting scholars; and creating a work area for the terminals used to search commercial data bases.

NATIONAL ZOOLOGICAL PARK CONSTRUCTION AND IMPROVEMENTS.

National Zoological Park. (+\$3,500,000) Construction at the National Zoological Park will continue to follow the guidelines established within the Rock Creek Master Plan and the development plan of the Front Royal Conservation and Research Center. An amount of \$1.4 million is requested to construct a 14,000 square foot veterinary hospital. The hospital will include x-ray and treatment rooms, surgical rooms, laboratories, pharmacy, animal wards, autopsy and food preparation rooms, and administrative and storage areas. At the present time, veterinary examinations at Front Royal that cannot be performed in the field take place in a makeshift one-room facility that contains no medical equipment. Moreover, if surgery is required the veterinarian stationed at Rock Creek must bring the necessary equipment to Front Royal or, if feasible, the animal must be transported to Rock Creek. A well-equipped hospital facility is badly needed and will assure proper medical care for the rare and endangered animals housed at the Front Royal Conservation and Research Center. An additional \$700 thousand is requested for the final construction phase of the Small Animal Facility which will be used as a breeding facility and a backup holding space for the Rock Creek collection and will house various small animals, such as marmosets, tree kangaroos and small birds. The Small Animal Facility is designed as a three winged building. The center wing, which contains all of the utilities equipment, and a side wing which houses some animals have been completed. The final phase consists of a second animal wing.

A further amount of \$1.4 million is requested for essential mechanical, structural, electrical, utility and plumbing repairs, and ground and roadway improvements for the Front Royal and Rock Creek facilities. The Rock Creek facility is the center for the Zoo's educational and exhibition functions. It is located on 168 acres of land containing 18 miles of heavily used paths and roadways and 60 facilities of varying ages. These are in need of regular attention to prevent further more costly repairs and construction. The Front Royal facility is the center for the Zoo's animal conservation and breeding functions and is located on a 3,150 acre site in Virginia. The facilities at this site also require renovation, repairs and preventive maintenance.

<u>Resource requirements:</u>	<u>1982</u>	<u>1983</u>	<u>1984</u> <u>This Package</u>
Budget Authority (\$000)	9,744	46,500	12,500
Outlays (\$000)	27,360	19,086	26,250
Full-time equivalent employment (workyears)			
Full-time permanent	--	--	--
Total	13	13	--

Short-term objectives:

- Insure the basic operation of all Smithsonian facilities.
- Perform necessary facade, roof and terrace repairs to maintain facilities in a weathertight, energy efficient condition.
- Continue progress in the development and execution of fire detection and suppression master plans.
- Promote the safety and security of visitors, the collections and staff and continue to improve access for the disabled to Smithsonian facilities.
- Progress toward renovation of the heating, ventilating and air conditioning systems of several major museums to provide better control of temperature and humidity conditions and to assure energy efficiency and conservation.
- Continue construction at the Zoo in line with the Rock Creek Master Plan and the Front Royal development plan.

Impact on major objectives:

- The physical plant will be maintained at a level necessary to sustain current program activity.
- Through repairs to facades, roofs and terraces and renovation of heating, ventilating and air conditioning systems, energy efficiency will be encouraged and a safer environment for the collections will be insured.
- Major improvements will be made toward improving security, correcting occupational health and safety hazards and easing accessibility for disabled persons.

-- Improvements to off-Mall facilities will be accomplished in support of the research and collections management needs of the Institution.

Other information:

-- In July 1980, the Institution formally established a comprehensive energy management program mindful of spiraling costs and shortage of energy resources. This program aims toward conserving and promoting more efficient uses of energy. A significant portion of the request in the Restoration and Renovation of Buildings appropriation account bears directly on energy conservation and energy efficiency, specifically those projects related to renovation of heating, ventilating and air conditioning systems and to facade, roof and terrace repairs.

-- It is anticipated that all projects not funded at this level will be affected by the future effect of inflation.

-- The following projects will be funded at this level:

<u>Restoration and Renovation of Buildings</u>	(\$000)
General Repairs and Improvements	\$ 345
Facade, Roof and Terrace Repairs	4,800
Fire Detection and Suppression Systems	1,085
Access for the Disabled, Safety and Security and Correction of Hazardous Conditions	785
Utility Systems Repairs and Improvements/Energy Conservation	1,370
Other Projects:	615
Anacostia Neighborhood Museum - Exhibit Laboratory Addition (\$450)	
Smithsonian Institution Libraries Modifications (\$165)	
Subtotal, Restoration and Renovation	\$ 9,000

National Zoological Park, Construction and Improvements

Rock Creek:

Repairs and Improvements	1,000
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Front Royal:

Small Animal Facility	700
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Veterinary Hospital	1,400
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Repairs and Improvements	<u>400</u>
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Subtotal, National Zoological Park	\$ 3,500
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Total, All Construction	\$ 12,500
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Construction
ENHANCEMENT DECISION PACKAGE 2
 Smithsonian Institution
 33-0129-0-1-503

Activity description: For FY 1984, resources of \$2.615 million are requested for restoration and renovation of the physical plant in addition to the \$12.5 million construction decision package. The Restoration and Renovation of Buildings (R&R) appropriation account is used to fund building repairs, alterations, as well as the construction of additions to existing facilities and minor new facilities. This request which builds on the Smithsonian's FY 1984 R&R request of \$9 million in the Construction Decision Unit, reflects the Institution's continuing strong commitment to address the needs of a large and complex physical plant. The Institution's Five-Year Prospectus FY 1983-88 has identified needs totaling \$69.3 million for essential R&R work.

<u>Resource requirements:</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	
			<u>This Package</u>	<u>Cumulative Total</u>
Budget Authority (\$000)	9,744	46,500	2,615	15,115
Outlays (\$000)	27,360	19,086	1,000	27,250
Full-time equivalent employment (workyears)				
Full-time permanent	--	--	--	--
Total	13	13	--	13
	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>1988</u>
Budget Authority (\$000)	18,721	30,175	30,130	23,300
Outlays (\$000)	32,050	22,250	30,500	23,500

Short-term objectives:

- Insure the basic operation of all Smithsonian facilities.
- Perform facade, roof and terrace repairs to maintain facilities in a weathertight, energy efficient condition.

-- Continue progress in the development and execution of fire detection and suppression master plans.

-- Promote the safety and security of visitors, collections and staff.

-- Perform other projects in support of program objectives.

Other information:

-- General repairs and improvements (+\$265,000) - There is provision in this request for demolition work and skylight rehabilitation at the Natural History Building in order to prepare an introductory hall for a biological sciences exhibit. Greater awareness and attention to the security needs at the Suitland Facility have resulted in plans to make additional repairs and improvements to the existing perimeter fence. To permit adequate patrol and surveillance of the perimeter fence, it is necessary to clear a trail for patrol vehicles on the interior side. For the Archives of American Art in the American Art/Portrait Gallery Building, there is a need to convert an unused 820 square foot area into a storage area and rest room. A new floor will be installed, the walls will be insulated and waterproofed and provisions will be made for electrical circuits, smoke detectors and a plumbing system.

-- Facade, roof and terrace repairs (+\$890,000) - To prevent structural damage and deterioration and to improve energy conservation, maintaining the integrity of the exteriors of all Smithsonian buildings is a high priority. Resources are requested to repoint the facade of the original Natural History Building and to recaulk the entire building to make it watertight. There is provision in this request also for completion of terrace repairs at the American History Building. This work will include removal of terrace stone, installation of new waterproofing, reinstallation of granite pavers and planter waterproofing. This project also will require the removal of the canopy and ramp installed for the "Nation of Nations" exhibit and the installation of new glass where the temporary doors will be removed.

-- Fire detection and suppression systems (+\$200,000) - The Institution continues to place great emphasis on upgrading fire protection and suppression systems in its facilities. These are usually complex multi-year projects. The proposed funds will be used to contract for specialized architectural/engineering design services needed to prepare plans for large and long-term fire detection and suppression system projects for the American History and Natural History Buildings. This will enable the construction phases to proceed in a more timely and efficient manner.

-- Access for disabled, safety and security and correction of hazardous conditions (+\$120,000) - The West Court floor in the Natural History Building is made of natural unbaked clay tiles. These are very susceptible to breaking and spalling, creating a safety hazard and a continuous maintenance problem. With funds sought, the entire tile floor will be removed and replaced with a more durable finished surface able to withstand the heavy traffic in the court.

-- Other projects (+\$1,140,000) - Resources are requested to complete space modifications for the Smithsonian Institution Libraries in the Natural History Building, including the construction of a suitable working area for the central technical services staff and terminal work stations for the staff that maintains the electronic bibliographic data base. There is provision also for additional space modifications at the Natural History Building. Various attic, basement and other museum areas will be vacated over time by the move of collections to the Museum Support Center. These areas are planned to be upgraded to meet other Institution requirements. Upgrading will include heating, ventilating and air conditioning, electrical, plumbing and lighting improvements. Funds are included to prepare an area or areas in Smithsonian buildings for use for day care center purposes and to modify outside space for play areas. The need for day care center facilities was determined by a survey conducted by the Smithsonian's Women's Council in cooperation with the Office of Equal Opportunity.

SPECIAL FOREIGN CURRENCY PROGRAM DECISION UNIT
Smithsonian Institution
Special Foreign Currency Program: 33-0102-0-1-503

Introduction:

The purpose of the Smithsonian Foreign Currency Program is "the increase and diffusion of knowledge." The Smithsonian's Special Foreign Currency Program supports this purpose by making grants in United States owned foreign currencies to United States universities, museums and other institutions of higher learning, including the Smithsonian itself, to conduct research projects in the so-called "excess" foreign currency countries. For FY 1983, the "excess" foreign currency countries are Burma, Guinea, India, and Pakistan. The Smithsonian supports research in archeology and related disciplines, systematic and environmental biology, astrophysics and earth sciences, and museum programs.

Long-range goals:

-- To continue the administration of a scholarly grants program in excess foreign currencies that is responsive to the needs of the United States academic community, the Smithsonian, and the participating host countries.

-- To foster intercultural understanding by affording opportunities for United States and foreign scholars to collaborate on research programs in diverse disciplines and by providing continuity to existing United States institutions engaged in scholarship abroad.

Short-term objectives:

-- To provide continued funding for all academic disciplines which receive funding in FY 1983, including new projects and continuation of new multi-year grants.

-- To add to the forward-funded reserve for the American Institute of Indian Studies.

-- To add to the United States contribution to the international effort to salvage Moenjodaro.

Accomplishments:

The Smithsonian Foreign Currency Program anticipates making 70 grants to institutions in 22 states and the District of Columbia by the end of FY 1982. These include funding for continuing and new research projects, research development, travel and limited conference and symposium support. Work in Burma, as in the past, will be limited but recent success in starting several projects indicates renewed interest on the part of the Burmese in establishing collaborative projects. Program activity will continue through FY 1983 in Egypt, Poland, and Yugoslavia where residual funds are being utilized until completely depleted. A total of 35 projects require continuation of multi-year funding.

Examples of recent accomplishments resulting from foreign currency projects are:

-- Extensive field work of local Burmese languages has resulted in the development of a tri-lingual dictionary. This dictionary will be used for language teaching in the Burmese school system which has reintroduced the use of English as part of the class curriculum.

-- Paleontological investigations in Pakistan have led to the discovery of the oldest and most primitive whales known to science.

-- Scientific data resulting from the study of the snail host of a blood fluke parasite has contributed to the development of biological controls against one of man's most serious parasite diseases, urinary schistosomiasis.

-- Excavations at Wadi Kubbania in Egypt uncovered a well preserved human skeleton of the Middle Paleolithic Age, some 60-80,000 years old, which has been declared a national treasure by the Government of Egypt.

-- Excavations at Oriyo mound in Gujarat, India show evidence of the return to the pastoral nomadism way of life in 1500 B.C. after 800 to 1,000 years of organized city dwelling.

-- Examination of marine fossil deposits in central Tunisia have made possible the dating of important vertebrate events such as the arrival of the horse in North Africa.

Activity description: An appropriation of \$9.04 million equivalent in foreign currencies, which has been determined by the Treasury Department to be in excess of the normal needs of the United States, is requested in FY 1984. The appropriation will be used:

-- To continue a program of grants to United States universities, museums, and other institutions of higher learning, including the Smithsonian itself. These grants are primarily for field research and professional training in those countries where excess local currencies are available, mainly in India and Pakistan. Fields of study are in areas of traditional Smithsonian competence, including archeology and related disciplines, systematic and environmental biology, astrophysics and earth sciences, and museum programs. Funding of \$4 million equivalent in foreign currencies is sought for this purpose in FY 1984.

-- To support future programs of the American Institute of Indian Studies. An appropriation of \$4 million equivalent in Indian rupees is requested in FY 1984 to be added to the amount of \$500 thousand equivalent appropriated in FY 1980 and \$750 thousand equivalent appropriated in FY 1981.

-- To contribute to the international effort organized through UNESCO to restore and preserve the Indus civilization city of Moenjodaro in Pakistan. An appropriation of \$1.04 million equivalent in Pakistani rupees is requested in FY 1984 to be added to the \$960 thousand appropriated in FY 1982.

<u>Resource requirements:</u>	<u>1982</u>	<u>1983</u>	<u>1984</u> <u>Request</u>	
Budget Authority (\$000)	4,320	2,000	9,040	
Outlays (\$000)	3,000	1,800	4,000	
	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>1988</u>
Budget Authority (\$000)	9,000	9,000	8,000	8,000
Outlays (\$000)	4,500	4,000	3,000	3,000

Other information:

-- Program of grants for field research: The Smithsonian Foreign Currency Program makes grants to United States universities, museums, and other institutions of higher learning, including the Smithsonian itself, primarily for research and advanced professional training in fields of traditional Smithsonian competence. The Smithsonian program is a major source of support for research carried out by United States institutions in the excess foreign currency countries. It strengthens the research and training activities of collaborating institutions abroad, for most projects directly involve host country institutions and scholars. Enduring professional ties which result from such joint efforts and scholarly exchange contribute to the strongest form of United States cultural relations with other nations. Moreover, these ties contribute to the integration of the worldwide advancement of science which serves to narrow the gap between the industrial and the developing nations.

-- Forward-funded reserve for the American Institute of Indian Studies: Founded in 1961 by a consortium of 15 United States universities and colleges, the purpose of the American Institute of Indian Studies (AIIS) is to promote American scholarship at the pre- and post-doctoral levels on India in all recognized fields of the humanities and the social and natural sciences. Funding for the United States administration is raised through dues paid by member institutions and from foundation grants from several sources. As of 1982, the number of consortium members has grown to 35 institutions with about 100 fellows in India at any given time in a variety of programs. Funding for research and local administration in India is primarily through the Smithsonian, with lesser amounts being contributed by the Department of Education (language teaching programs only), National Science Foundation (fellowships in specific disciplines), International Communications Agency (fellowships), and the Ford Foundation.

Through its competitive grants program, the Smithsonian has provided annual funding to the AIIS for fellowships, research, symposia, publications, and administrative costs. The Smithsonian has helped sustain this Institute and other American research centers abroad for more than a decade because of their significant contributions to scholarship and science without regard for national boundaries and their special service to American scholars conducting research.

While the amount of Indian currency available to the United States government is still large, it is a finite fund in inactive accounts. With inflation rates in India at a high level, it will probably disappear more quickly than has been anticipated. The United States Embassy is currently estimating five to seven years of excess status. Since the end of "excess" currency status historically has happened suddenly, the Institution proposes to reserve funds for the AIIS to avoid a situation similar to the one which developed in Egypt, where activities were quickly curtailed and insufficient lead time has not allowed the identification of replacement funds.

By building a substantial foreign currency reserve fund now, the Smithsonian hopes to assure that AIIS will be financially secure on a long-term basis, and to encourage other such centers to make the effort necessary to develop funding from other sources for the period beyond that of support by the Smithsonian.

-- International effort to salvage Moenjodaro: In 1921, two important discoveries were made in the Indus Valley of India, now Pakistan, when archeologists discovered the remains of the cities of Harappa, near Lahore, and Moenjodaro, about 250 miles north of Karachi. These two cities apparently are the products of the Harappan civilization which flourished over 4,500 years ago, from about 3000 B.C. to 1500 B.C. Moenjodaro, a city of one square mile, is the larger and more impressive of the two sites. From the standpoint of planning, sanitation and social organization, this city anticipated developments which only blossomed several thousand years later. Since its discovery, the excavated ruins at Moenjodaro have been threatened by two main causes of destruction. Floods of the Indus River and highly saline ground waters have caused the serious deterioration of the excavated remains.

Since the 1960s, the Government of Pakistan has appealed to the international community for assistance in salvaging Moenjodaro by diverting the river, lowering the water table, providing remedial action to stabilize threatened buildings and preventing disintegration of those that have not yet been seriously damaged, and installing appropriate landscaping. UNESCO responded to Pakistan's appeal and, in 1974, agreed to lead an international fund raising campaign. In the interim, the Government of Pakistan, with assistance of UNESCO, has conducted a series of technical studies relating to river control, dewatering and other methods conducive to the eventual preservation of the site.

On October 10, 1979, an agreement between UNESCO and the Government of Pakistan for the preservation and development of the monumental site of Moenjodaro was signed. Following this, an Executive Committee of the Campaign was set up to advise the Director-General of UNESCO on all aspects of the project. The Committee has held several meetings during which various aspects of the plans were reviewed. Bid documents are being prepared for water pumps for river control. Subsequent stages will include consolidation and treatment of remaining structures and planting the area with salt resistant plants to consolidate the soil and to provide suitable protection from wind driven sands. To date, UNESCO has raised approximately \$1.3 million, mainly from governmental contributions of member states. The Government of Pakistan has made an initial commitment of \$2 million for the project. The funds raised thus far have been deposited in an international trust fund for Moenjodaro. Considering that the total budget for the project is estimated at more than \$13 million, the Committee is seeking new or additional contributions. The project, long in the planning stage, has begun with a scheme for ground water control. The Smithsonian Institution plans to seek in increments a total of \$4 million equivalent in nonconvertible Pakistani currency as the United States contribution toward this project. In FY 1984, an appropriation of \$1.04 million equivalent in Pakistani rupees is sought to add to the \$960 thousand appropriated in FY 1982.

As with the Nubian monuments of Egypt, preserving the remains of Moenjodaro will be of great benefit to generations of future scholars. The network of scholarly relations between American institutions and their counterparts in Pakistan will be developed and strengthened. Indeed, the maintenance of cultural ties between nations can provide a link which endures through the shifting of other relations and insures continued contact between nations. Finally, support by the United States for the preservation of this unique historic site is in the spirit of the UNESCO convention concerning the protection of the world culture and natural heritage (the World Heritage Convention) which was ratified by the United States in 1973.

SMITHSONIAN INSTITUTION LIBRARIES



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